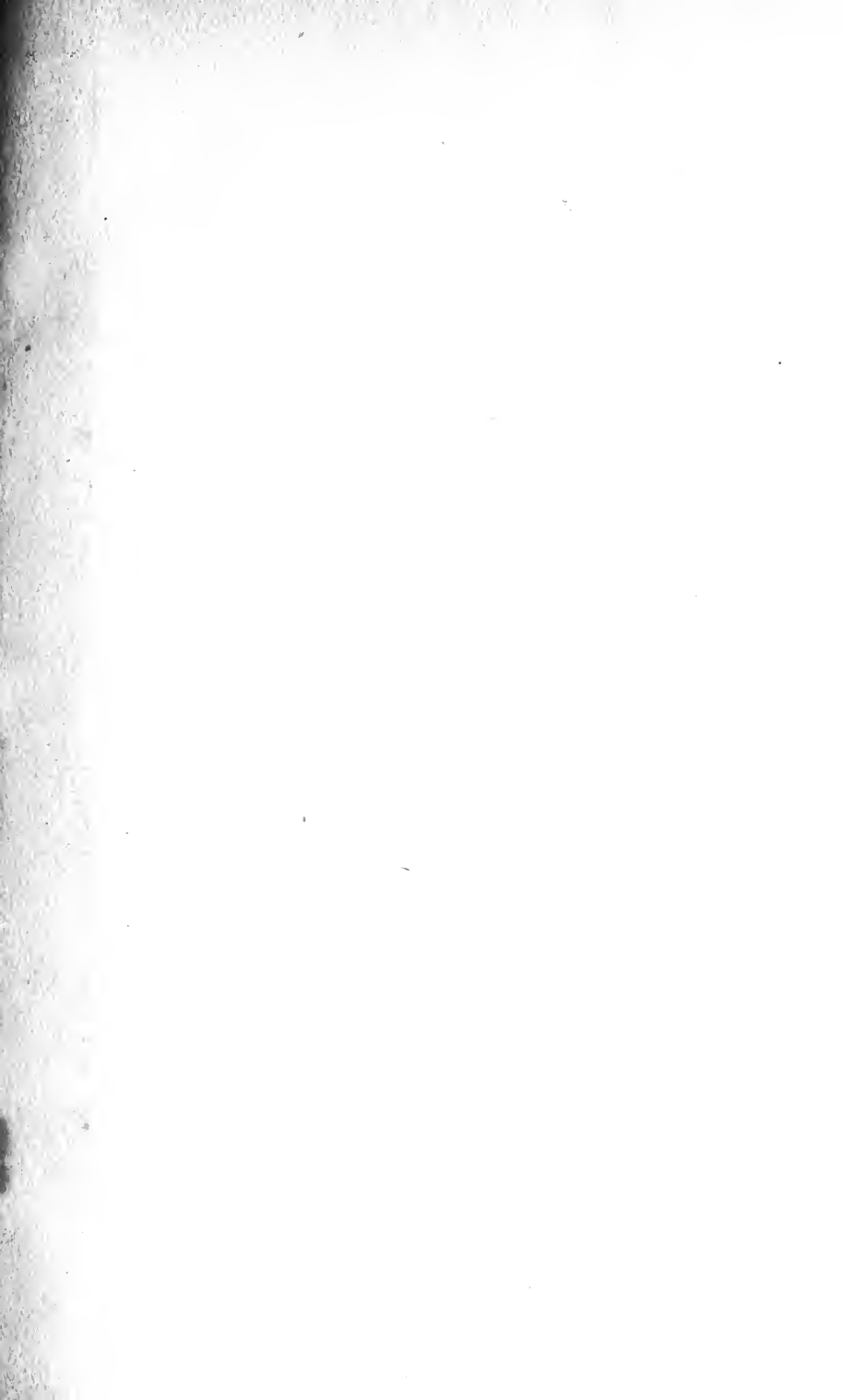


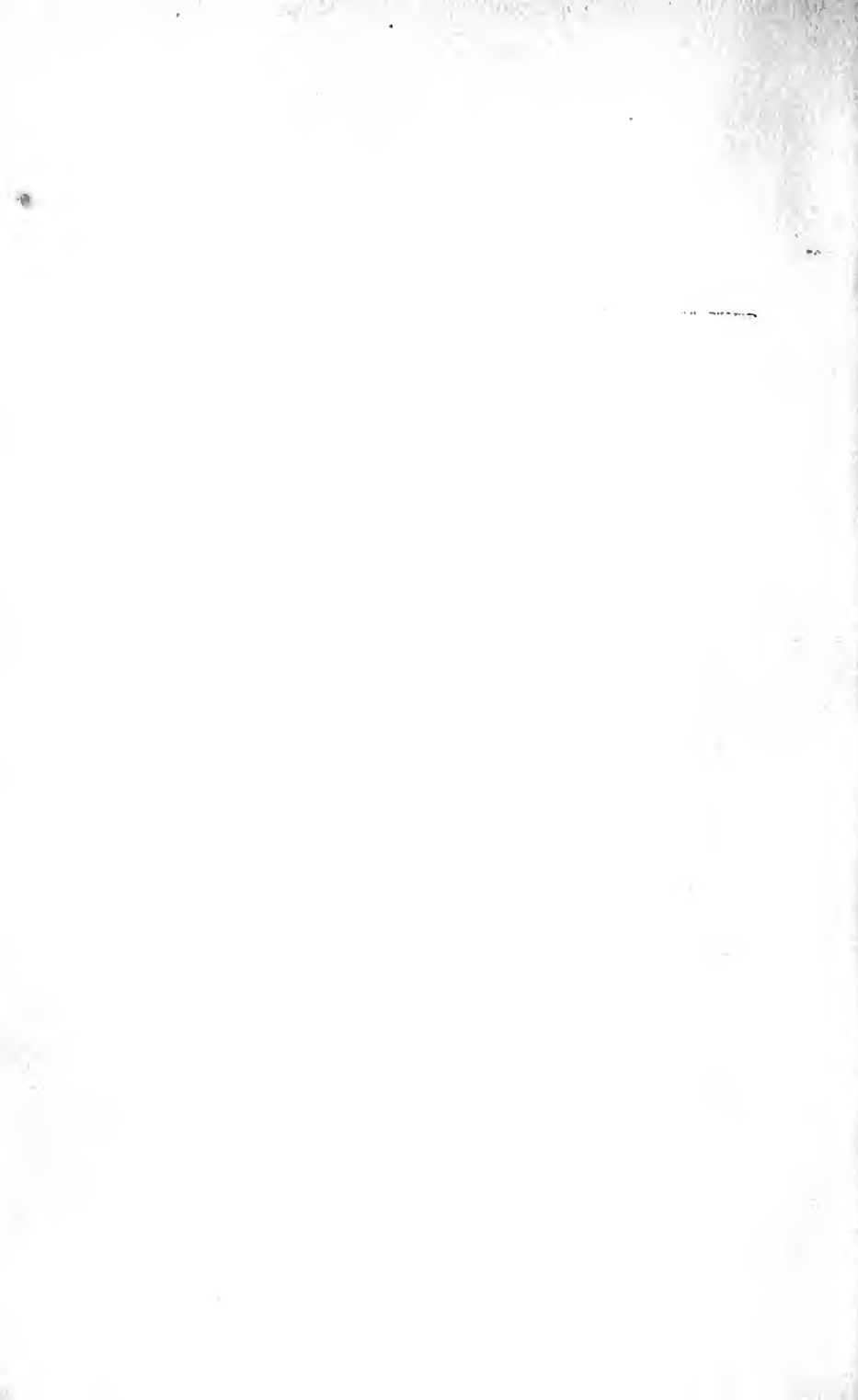
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THE

MEDICO-CHIRURGICAL

REVIEW,

AND

JOURNAL

OF

PRACTICAL MEDICINE.

NEW SERIES.

VOLUME FIFTEEN.

[BEING VOL. XIX. of ANALYTICAL SERIES.]

[1st of APRIL, to 30th of SEPTEMBER,]

1831.



EDITED BY

JAMES JOHNSON, M.D.

PHYSICIAN EXTRAORDINARY TO THE KING OF GREAT BRITAIN,

&c. &c. &c.

"Nec tibi quid liceat sed quid fecisse decebit

"Occurrat mentemque domat respectus honesti."—CLAUD.

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AN ESSAY on INDIGESTION, or MORBID SENSIBILITY of the STOMACH and BOWELS, as the proximate Cause, or characteristic Condition of Dyspepsia, Nervous Irritability, Mental Despondency, Hypochondriacism, and many other Ailments, with an improved Method of Treatment, Medicinal and Dietetic.

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Published by S. Highley, 174, Fleet-Street.

ERRATA.

In Number XXVIII, April, 1831—

Page 348, for "lymphatic," read sympathetic.

— 350, for "after," read often.

— 352, for "in instances" read in some instances.

Medico-Chirurgical Review,

No. XXIX.

APRIL 1, TO JULY 1, 1831.

I.

CLINIQUE CHIRURGICALE, EXERCÉE PARTICULIÈREMENT DANS LES CAMPS, ET LES HÔPITAUX MILITAIRES DEPUIS 1792, JUSQU' EN 1829. Par *Le Baron Larrey*, Membre de l'Institut de France. 3 Volumes 8vo. with a Volume of Plates. Bailliere, 1830.

IN an age of books—when every cradle sends forth an author—when those who write are scarcely surpassed in number by those who read—and when, notwithstanding all this *cacoethes scribendi*, we are doomed to wade over twenty volumes, before we meet with one which repays the purchase-money, or is worth enrolling in our private catalogue—it is refreshing to peruse such a performance as the *Clinique Chirurgicale*. Unlike the provincial Essays of our lane-and-hedge observers, in which a few fancies are concocted by a strong imagination into the form of facts, and artfully spread over an extended surface, that however they may lack in matter they may not be confined in mould—it teems in rare and weighty knowledge, and every position, fact and statement are communicated through the medium of cases, which are two circumstantially recorded to be suspected of inaccuracy.

It fell to the happy lot of Larrey, to become the intimate friend and field-companion of the most enterprising warrior, that ever ransacked empires and shattered thrones—to follow him in all his flights of victory—to accompany him in all his journeys of ambition—to fight with him in all his battles—to share with him in all his fortunes—to see every variety of disease in almost every country, and to treat every form of accident under the influence of almost every climate. Witness of twenty-six campaigns in the four quarters of the globe—whether stationed amid the burning sands of Egypt, or the frozen wilds of Russia—wherever the eagles of Napoleon, or his armies flew—wherever the cannon and the sword were sent to sweep thousands to their graves—there was the active and philanthropic Larrey, stemming the tide of human blood—husbanding the waste of human life—pouring oil and balm into the wounds of his countrymen—diminishing the havoc of outrageous war—and gathering a fund of observations for the advancement of medical science, which perhaps no former period of the world offered such splendid opportunities of collecting, and for the accumulation of which perhaps no preceding surgeon was more unexceptionably qualified.

It may easily be imagined, therefore, that from a volume, of five hundred pages, emanating from such a source, no single article, however long

or laboured, could extract every important fact, or review every interesting sentiment. Some observations must be overlooked, and some statements must remain uncriticised; but as the present is the first of these volumes, to each of which equal attention is indispensable, the most striking novelties only have been culled, and less important matter has been referred to.

Diseases of the head occupy the principal portion of the present volume, and it is mainly to the consideration of these affections that our attention shall be confined; but as some observations, of considerable interest, are contained in the Baron's sketch of the nature and treatment of wounds in general, as well as in his views of tetanus, it might not be well wholly to overlook them. While speaking of wounds produced by the bite of a rabid animal, he takes occasion to state his opinion as to the nature of *hydrophobia*.

"It is difficult," he says, "to explain how the virus of a rabid animal can remain latent in the system for a long time, can develop itself afterwards, and can end by producing the most terrible effects. It would, nevertheless, appear that this subtle and unknown poison has a particular partiality for the nerves, and concentrates itself by preference in the nervous system; in which it can remain inactive for a lapse of time more or less considerable, on an average, as we have said, of thirty or forty days. Its effects, when it is developed, are purely nervous, and it is this fact which seems to justify this assertion."

It cannot be denied but that the most evident indications of inflammatory action attend the symptoms, and distinguish the pathology of *hydrophobia*—that we have often inflammation of the œsophagus, pharynx and larynx, and occasionally of the brain and spinal cord; yet it is generally admitted, that these appearances are more the consequences than the cause of the disorder, and that although frequently present with, they are by no means essential to, the existence of hydrophobic action. Rossi of Turin has performed experiments, which, were they sufficiently confirmed, must be regarded as strongly corroborative of Larrey's theory. He dissected out a portion of nerve from the body of a rabid animal, during the violence of its paroxysm, and making an incision into the flesh of a healthy animal, inserted this extracted piece of diseased nerve into the incision. After some time, the animal, thus inoculated, became equally mad with the one from which the poisoned nerve had been received, and died affected with the same symptoms. The following case will be read with interest, and strongly favors the author's doctrine—that *hydrophobia* is purely a nervous disorder. A soldier, æt. 20, had his thigh bit by a mad dog, when a youth of between fourteen and fifteen years of age. From this period, until he came under the care of Larrey, Courmontague did not cease to experience a kind of nervous affection, which was characterized by spasms and a slight aberration of the intellectual faculties. He was irritable, very loquacious, and was frequently agitated by automatic movements. He was emaciated, his eyes were haggard, he was often afflicted with vertigo, and dimness of sight, and he felt an invincible repugnance against the sight of limpid fluids, even in circumstances in which his companions, oppressed by heat, were compelled to drink in his presence. He drank bitter ptisans and other coloured liquids with more or less avidity. These were his principal symptoms when he came under the management of Larrey—not on their account—but for a sprain of the right foot, which he had received during

violent exertions. To this affection were soon superadded symptoms of nostalgia, and Courmontague expressed a strong desire to be dismissed the service. Obstinate bent upon this purpose, far from allowing his cure to proceed, he secretly employed means to swell the leg and to aggravate the disease; so that in a short time gangrene appeared in the inside of the foot, and spread so hastily that the whole limb became sphacelated, and was amputated. After some attacks of traumatic irritation, caused by deviations from the prescribed regimen, two-thirds of the wound had cicatrized, when, on the 30th day after the operation, the patient suddenly refused all kinds of transparent liquids, and became attacked with signs of cerebral inflammation. He was convulsed, he locked his jaws, he ground his teeth, and fell into a complete state of tetanic contraction. All the excretions were suppressed, the spasm and rigidity increased, and during the night of the 33d he expired. On inspection were found hypertrophy of the cranium, principally in the occipital region, considerable engorgement of the vessels both of the membranes and brain, of the superior longitudinal sinus and plexus choroides; slight granulations on the surface of the hemisphere; about an ounce of yellow serum in the lateral ventricles; firmness and density of the whole brain, of the spinal chord, and especially of the tuber annulare, in the substance of which a red tinge was evidently manifest; and the neurilema of the spinal nerves was stained of the same colour. The mucous membranes were all healthy; except a few old adhesions, nothing morbid could be detected in the lungs; and all the viscera of the abdomen presented a natural appearance. The pericardium was firmly attached to the heart in its whole extent, but evidently by adhesions of a former date; its cavities were very contracted, and the great vessels, which issued from it, were not more than two-thirds of their ordinary size.

It is tolerably evident, from the history of this case, both before and after death, that the first and last symptoms, by which it was distinguished, were referrible to the wound occasioned by the bite of the mad dog; and that the poison, which had been thus inserted in the system, remained comparatively latent for the period of six years, giving rise to some anomalous nervous symptoms only, which scarcely, if ever, amounted to disease, until meeting with an exciting cause, which awoke the dormant principle into full activity, the patient was no longer respited from its fatal consequences. There are very many facts, however, in existence relative to hydrophobia, which in our minds distinguish it clearly from ordinary tetanus; and unless there was much stronger reason than there is for identifying these disorders, no one should make the attempt, as it is only calculated to lead the unthinking into a state of carelessness, with reference to what is now generally considered the almost exclusive cause of this formidable malady.

There is nothing in the Baron's observations on the treatment of *punctured, lacerated, or poisoned wounds*, which may detain us. In *traumatic erysipelas*, he is a strong advocate for the application of the actual cautery. According to him it scarcely produces any pain, it diminishes the heat, redness and tension of the affected parts, it is never followed by gangrene or suppuration, but ends in small dry eschars, which leave no sensible cicatrix, and it rapidly improves every symptom. How it effects all this he labours to explain, but his *modus operandi* is much more tedious than satisfactory. In *spontaneous erysipelas* he has found the same remedy equally beneficial;

and whether the sovereign efficacy of the iron precludes the necessity of every other measure we know not, but certain it is, that the worthy author has not condescended even to hint at our humble efforts to establish a *coup de main* treatment of our own. Thirteen-inch incisions are apparently as little thought of across the Channel as they are at present here, and although we should be sorry to see the scalpel or needle prohibited in every case of erysipelas, convinced as we are of their utility in many, yet it may be as well both for their patients and themselves, that the primitive proposal of our English surgeon stands as little chance of adoption by the French, as that of the French surgeon probably does by the English. The fallen fate of this celebrated proposal has been obviously accelerated by the injudicious manner in which it was advanced; and as truth has frequently been scouted as error, because intemperately advocated, so real improvement may totally miscarry, by being brought forward with unnecessary parade and defended with dogmatic obstinacy.

The contagious character of *hospital gangrene* Larrey feels no scruple in maintaining; and if extensive observation can enhance experience, his testimony to the fact cannot with ease be set aside.

"When wounds, that have been far advanced towards healing, have been inoculated with matter from a sore affected with this disease, they have put on the same appearances, and have been converted into putrid ulcers. The linen, with which such tainted sores are surrounded, and the instruments employed in dressing them, are faithful conductors of the poison. The inoculation has been performed under my eyes, I have watched its progress through every stage, and, however it may oppose the sentiments of others, I entertain no doubt of the contagious nature of this affection."

It is generally, he admits, idiopathic, but, in opposition to the Professor of Montpellier, he considers that occasionally it is symptomatic of a deranged condition of the gastric organs. In such cases an emetic, sulphate of quinine, camphor, opium, and light mineral acids will arrest its progress, dissipate the local irritation, and restore the wound to its originally healthy state. In idiopathic cases, local treatment is more necessary. The *eau de Labarraque* is one of the most favourite applications, and after the sore has been thoroughly deterged by this fluid, the actual cautery, in a state of incandescence, is liberally applied. This formidable weapon finds no equal in the choice of Larrey. Wherever the secretions are deranged, or the granulations are unhealthy; if the sore be indolent and too slowly heals, or be too active and becomes luxurious, *le cautère actuel* is the safest, speediest, and most sovereign remedy. It diminishes pain, dissipates inflammation, cleanses the wound, rectifies the granulations, recalls the secretions, and confers upon the patient "an inexpressible calm." Deducting our *granum salis* from this highly wrought estimate, and making all due allowance for paternal partialities for a favourite remedy, the actual cautery stands recommended to our regard by more than an average weight of unexceptionable evidence, and although a few prejudices have as yet to be overcome, we look forward to a period which, we imagine, is not far distant, when this Gallic weapon, barbarous as it may at first appear, shall be wielded with perhaps more discrimination, but not less faith by our English surgeons. If our acids and our alkalies, our nitrates and our sulphates, could achieve all that the actual cautery effects, the French had, long

ere this, arrived at a discovery, which would have dispensed with a remedy so obnoxious to human feelings; and when the instantaneousness of its action is balanced with its intensity, there is reason to doubt whether the *actual* is more severe than the *potential* cautery.

In common gangrene this application is not recommended. While it alleviates and arrests the contagious form, it extends and aggravates the latter. Contagious gangrene is more a local, common gangrene more a general disease, and therefore less likely to be cured by topical remedies. While the French were in Egypt they were sadly persecuted by this affection. Even the slightest wounds, inflicted by the purest instruments, were attacked by gangrene; and those, who were seized by yellow fever while labouring under any solution of continuity, scarcely if ever escaped.

Larrey's description of *tetanus* is so excellent, that nothing but want of space prevents us from extracting it. He has found it especially to invade the young during great vicissitudes of temperature, and such as were of a dry, irritable temperament. Fear of limpid fluids he states as a frequent symptom, and the absence of all intellectual disturbance, while the disease seems to revel in the nervous system, he is inclined to explain by believing that the nerves are not prolongations, but perfectly independent of the brain. In emprosthotonos he has observed that the nerves usually affected lie on the anterior part of the body; in opisthotonos on the posterior part; while in complete and universal tetanus both sets are equally implicated. After the battle of Waterloo, he had many opportunities of inspecting the remains of those, who perished from tetanus in the hospitals of Louvain; and "invariably there were discoverable evident traces of inflammation on the spinal cord, with more or less effusion of a reddish colour within the sheath." Hence does he advise moxa, cupping-glasses, anodynes, and such applications to the spine as appear calculated to prevent, or remove the cause of irritation. Internal remedies of every description, if they are not always useless, are soon rendered so by the patient's falling into a state of strangulation shortly after he is attacked. While he can swallow, opium, camphor, musk, castor and alkalies may be given, and they are least obnoxiously given in the form of emulsion. The case of a Mameluke, belonging to Maurad Bey, is given, who was cured by internal medicines and warm-baths. Eight grains of camphor, the same quantity of musk, and twenty grains of opium were dissolved in a glassful of common emulsion, and the half was given for a dose. A few minutes after this draught was taken, the pains were diminished, the jaws relaxed, and sleep returned towards night. Next morning the patient felt much better, suppuration of the wound was re-established, the remainder of his medicine was taken as a second dose, all went on favourably, and he proceeded along his journey in return to his prince. Friction with oil, which some have so liberally extolled, he has not found to do any good; cataplasms made with the leaves of tobacco have been fruitless, and mercurial unguents produced only evident evil. "The employment of this last remedy," he observes, "even against syphilis, requires in Egypt the greatest care; for this mineral, administered in that climate as it is in Europe, has occasioned the worst consequences, among which we may enumerate madness and diseases of the liver." When tetanus appears after the wound has healed, cutting freely down upon the cicatrix is strongly recommended; but if after a ligature has been applied,

it is probable that some nerve is included, and the ligature should be removed. In all compound fractures and dangerous wounds of the extremities, complicated with tetanic symptoms, the Baron's only sheet-anchor is the amputation-knife. From the success, which he has experienced in removing tetanus by amputating the wounded part, he has been encouraged to make the following proposal. "If, in tetanus, induced by such a wound of the extremities, as would not on its own account demand amputation, it be not better to remove the limb immediately tetanic symptoms appear, than to expect from the resources of nature and most uncertain remedies a very doubtful cure?" We cannot enter into his defence of this proposal, which merits serious consideration; but he concludes it, by saying that, "although I regret not having a greater number of recoveries to attest the value of this plan, I yet have sufficient to conclude this amputation, *faite à propos*, appears to me the most certain means of arresting and removing the effects of tetanus, which depends on a wound situated upon the extremities."

The Baron's favourite caustic is no mean remedy in tetanus, as well as gangrene, and the recovery of the patient, with whose case we shall conclude these observations upon this disease, which the author considers *one of the most remarkable in military surgery*, cannot certainly be ascribed to any inferior agent. A soldier was struck by a ball, which carried away a part of the spine belonging to the right scapulum, a portion of the trapezium, the sub and supra-spinati muscles. The shattered tendons were cut away, the lacerated pieces of muscles were removed, some splinters of bone were extracted, and the wound was carefully dressed. All went on well for some time, and the circumference of the wound began to cicatrize, when symptoms of tetanus suddenly appeared, and in a few hours after their appearance complete opisthotonos was established. Diaphoretic fluids and large doses of opiates were administered; oily, camphorated, and narcotic lotions were applied over the body. The purulent secretion being suspended the cicatrix made rapid progress, and in forty-eight hours it covered the half of the wound. At this period the patient felt in the cicatrized part a painful sensation, as though the edges of the wound had been enclosed between a pair of pincers; and the slightest pressure upon the delicate cicatrix, more especially of metals, as iron or steel, obliged him to emit piercing cries. Every tetanic symptom gradually increased, the superior extremities became rigid and were turned backwards, the cervical vertebræ were completely pulled down, and the power of deglutition was lost. In vain were two incisive teeth extracted, in order that medicines might be introduced into his stomach; not a drop got into the œsophagus, and the mere sight of pure water induced the most frightful convulsions. He foamed freely at the mouth, every symptom heightened, and this wretched man, whose bodily agony was ten-fold enhanced by a complete consciousness of his situation, had nothing to all appearance before him, but the prospect of a sad and sudden death.

When the disease had arrived at this crisis, Larrey resolved on trying the actual cautery.

"With this view," says he, "I made red, even to incandescence, four large cauterizing irons, and I applied them in succession over the whole extent of the wound, so as to bear more strongly over those points of the cicatrix, where I suspected the principal branches of

the accessory nerve of Willis (spinal nerve) to be compressed and swollen. This application was extremely painful, nevertheless I had firmness enough to continue the operation, until all the surface of the wound was deeply and completely seared. Scarcely was this effected when a general stop was put to the progress of the disease. The patient voluntarily sat up and asked for drink, and the jaws separated spontaneously. Sixty drops of laudanum, and a few drops of Hoffman's mineral liquor were given him in a glassful of almond emulsion, in which a little nitre had been dissolved; the narcotic and camphorated liniments were repeated and the body was enveloped in warm flannel. The skin perspired profusely, a perfect calm came on which was succeeded by a deep sleep, and the next morning I found my patient free from every tetanic symptom."

The future dressings of the wound were simple, the eschar separated in nine or ten days, cicatrization recommenced speedily and without pain, and, beyond a little stiffness in the right arm and shoulder, Demoré was completely restored to health.

Larrey's views of *wounds of the scalp* and his treatment of injuries of the skull exhibit no peculiarity. Sutures, in the majority of cases, he strongly reprobates, the lightest dressings he particularly recommends, and unless some urgency occur which requires these dressings to be removed, he advises them to be left undisturbed during the first seven days after the infliction of the injury. The latter part of this advice is extremely suspicious, and should not, we apprehend, be implicitly adhered to; for the natural secretions of the wounded part, accumulating and putrifying for such a period, could not fail to irritate and inflame the sore. What, therefore, might be gained by uninterrupted quiet, would probably be lost by want of cleanliness.

When the solution of continuity has passed through the integuments of the head, and proceeded to the brain, the symptoms vary with the part disturbed. If the anterior or superior extremities of the hemispheres have been injured, the Baron has generally observed that some sense is destroyed, or some intellectual function is deranged. Whereas, if the cerebral injury be limited to the base of the encephalon, no mental aberration can be perceived. In such instances different paralytic symptoms appear among the muscles, and the organ palsied invariably belongs to the side of the body opposite to that on which the injury was received. "These two principles," says the author, "suffer no exception, notwithstanding what has been asserted to the contrary;" and as several very interesting cases are detailed in their defence, it cannot be said, by such as consider them untrue, that they are likewise unsupported.

A soldier received the stroke of a sabre on his forehead over the coronal suture, which occasioned slight compression of the anterior lobes of the brain. In addition to the inflammation, which followed this injury, and which was subdued by the usual remedies, the only symptom which marked the progress of the cure was a very manifest incoherence in the ideas of the patient. His answers, although sometimes precise, had more frequently no reference to the questions proposed; but by proper care he was dismissed from the hospital, after six weeks, in all respects well.

Another soldier was similarly wounded on nearly the same place, and was brought under Larrey's care. On making out the history of his complaint, it was discovered that he had, on different previous occasions, re-

ceived several injuries on the anterior part of the head, and that from that period to the present time his intellect betrayed some traces of derangement.

A grenadier was shot by a ball, which buried itself in the mastoid process of the left side of the head. Hemiplegy of the right side came on and he died in a state of lethargic torpor.

Nicholas Baumgartner, in an engagement with one of his companions, while under the influence of wine, received a blow on the left eye, and a part of the rod, with which it had been inflicted, was left behind in the orbit. Palsy of the left side came on, and although the wound and the hemiplegia occupied the same side, the Baron confided with so much confidence on the accuracy of his principle, that, in opposition to appearances, he referred to the right hemisphere as the principal seat of injury. No mental aberration was discoverable. The patient, on the contrary, was quite sensible of his situation, and replied to every question always rationally, although sometimes by signs, as he occasionally experienced some difficulty in articulating. Two days after the receipt of the injury he died, and, as had been anticipated, a small piece of wood, some lines in length, was found embedded in the middle lobe of the right hemisphere, near the fissure of Sylvius.

The following is an extremely instructive case. During the Russian campaign, a young grenadier received a wound from a lance on the posterior part of the head, towards the centre of the lambdoidal suture. The weapon was so well tempered that it penetrated far into the left posterior lobe of the brain, without producing any serious injury to the bone. The wounded man was left for dead upon the field, but being afterwards carried to a neighbouring village, his wound was dressed and ultimately healed, leaving, however, the patient deprived of most of his senses, and seriously impairing the functions of many of his internal viscera. The voice, after having been at first hoarse and obscure, was gradually lost, hearing, taste and smell were weakened, and the muscles of the larynx being partly paralyzed, this organ sunk down for half an inch below its natural position, in consequence of which the glottis was constricted, and the epiglottis curved down upon the rima by the irregular action of the muscles by which this cartilage is moved. In order to respire, the patient was compelled to clasp his jaws firmly together, so as to raise the larynx by a simultaneous contraction of the attollent muscles of the pharynx and lower jaw, just as frogs do when swallowing air to fill their lungs. The diaphragm, participating in this paralysis could no longer act upon the lungs: the pharynx, œsophagus and stomach had equally suffered. The abdomen did not alternate in its movements with the expansion and collapse of the chest, and the slightest exercise covered the body with perspiration, and rendered the face livid. His pulse was almost imperceptible, the motion of his heart could with difficulty be recognized, and his extremities were habitually cold. The intellectual functions, on the other hand, were quite untouched, and as he was unable to reply by speech to the questions he was asked, he wrote his answers with great precision and accuracy. "All these facts," argues the Baron "are in my opinion strongly corroborative of Dr. Gall's view, that the reasoning faculties reside in the periphery of the superior and anterior portions of the brain." This fact we believe is now very generally admitted, but the

author proceeds farther, and gives some countenance to the ridiculous detail, into which the advocates of phrenology have imprudently entered.

"Differences," he observes, "more specific than any of those, which have yet been mentioned, are submitted to our observation in cerebral symptoms, occasioned by mechanical or morbid lesions, which certain portions of the brain have sustained. When these injuries are confined to the cerebellum, the organs and functions of generation are especially affected, and when the lateral and somewhat anterior portions of the brain are injured, in a great many cases the memory is impaired—that is to say, individuals so wounded cannot easily recollect the names of objects with which they have not had a long acquaintance, such as proper names, more especially when they are very compound. We will not attempt to explain a circumstance so singular, but facts exist upon the subject which it is impossible to overlook."

A young soldier had received, at the battle of Eslingen, a ball in the left temple, near the orbit. The faculty of vision was entirely destroyed, the left half of the cranium was more arched and protuberant than the right, and one could perceive both by the eye and touch a portion of the frontal suture, not less than an inch in extent, open by the disunion of the parietal and frontal bones. His senses and almost all the faculties of animal life were extinct. The wound was sounded, the ball, which was discovered, *vers la fosse orbitaire*, was extracted and the aperture, through which it was withdrawn, exposed to view the pulsations of the brain. After this operation the symptoms began to improve, and as improvement advanced a new language, like that of infants when they first begin to babble, was substituted by the patient for his vernacular tongue. His affirmatives were all expressed by the single word *baba*, his negatives by *lala*, and when he wished for any thing he pronounced with some force the words *dada* or *tata*. Being unfortunately seized by fever, he died three months after the extraction of the ball. On inspection the dura mater, which corresponded with the opening between the sutures, was very much thickened and firmly adhered to the edges of the separated bones, the circumvolutions of the subjacent portion of the brain were effaced, and the arachnoid and pia which covered it were much condensed and adhered to each other. An opening existed in that portion of frontal bone, which lies below the left temporal process and behind the external angular apophysis. This hole was from six to seven lines in diameter, its edges were smooth and rounded, and extending from it towards the frontal bump of the same side was discoverable a cicatrized fracture—*une fêlure cicatrisée*. Other vestiges of ossification were observed, in the indented edges of the separated bones, and in connecting to the os frontis a lamella of bone, which had been originally detached, by a membranous substance which was partly ossified.

A cavalry officer, æt. 26, was wounded in the upper jaw, near the left ala of the nose. The instrument penetrated into the left nasal fossa three inches and a half, traversed the cribriform plate of the ethmoid bone, and entered eight or nine lines at least into the left anterior lobe of the brain, so as nearly to reach the anterior part of the corpus callosum. Very violent hæmorrhage followed the accident, a large quantity of blood was effused into the interior of the cranium, and syncope at length occurred. Every sense was at first abolished, and afterwards only gradually returned. The right eye, right nostril and right half of the tongue, were longer than the left in regaining their activity, and the right side of the body laboured under a general

hemiplegic affection, which was very slowly dissipated. The patient's recollection of all substantive nouns, which have any analogy with proper names, was totally extinguished, whilst the memory of images and every thing which was very susceptible of description remained perfectly entire. Although for a long time well acquainted with the author, he could not recollect his name, calling him always by that of *M. Chase*; and the names of his nearest relatives were equally forgotten. "The mental aberration, which this officer at first suffered, had ceased, but every thing which referred to himself, or to his history, cast him into a state of melancholy or confusion, whilst conversation, which referred to his family, his parents, or his friends, restored to him the free exercise of his intellectual faculties."

From a case which follows, in which a wound received near the external angle of the left eye, which was followed by a temporary loss of the senses and even some derangement of intellect, it would appear that this apparent defect in recollecting names is less attributable to loss of memory, than to an impracticability in pronouncing them. In this instance the patient could write down the name of any object, or person with which he was acquainted, and if some pieces of money were given him to count, he could tell their number by counting on his fingers.

Tetanic symptoms are frequent consequences of wounds of the head, and although they have been very generally ascribed to some immediate injury done to the brain or nerves, or to the inflammation which such injuries produce, the Baron is disposed to believe that they often arise from laceration of the membranes and fissures of the internal table of the skull.

A young soldier received on his right eyebrow a kick from his horse, which divided the integuments, and fractured the external wall of the frontal sinus. The hæmorrhage, which followed the wound, was great, and all his animal functions were paralyzed. Some hours afterwards, however, he gradually revived, when he began to complain of extremely sharp pains in the wounded part, and convulsive movements of the lips and mouth. In defiance of very active treatment symptoms of phrenitis appeared, and rapidly advanced, general fever and delirium speedily supervened, a state of profound lethargy succeeded to these symptoms, and on the 19th day of the disorder the patient died. The pains, which he experienced in his head during the close of his illness, were so severe that the irritation of even the mildest dressings threw the muscles of the face into convulsions, and while the left arm was palsied the right arm was convulsed as often as convulsions attacked the face. Inspection of the body disclosed to view very intense inflammation and swelling of the mucous lining of the frontal sinus and nasal fossæ, a fissure in the posterior wall of the sinus, so fine as to be almost insensible, intense inflammation of the corresponding part of the dura mater, and some extravasation of blood mixed with serum between this membrane and the right anterior lobe of the brain. The pia matter was equally inflamed and covered with points of suppuration, the substance of the brain, especially that of the right hemisphere, was dense and its vessels were engorged. The mucous surface of the pharynx and larynx was red, the bronchia were filled with reddish-coloured fluid, and the lungs, which were of a brown colour, were filled with blood.

"The rapid progress of these inflammatory and nervous symptoms, (says Larrey,) at

first induced me to believe that extreme sensibility of the pituitary membrane had produced them; but succeeding observation has convinced me, that they were mainly attributable to the fissure of the internal table of the frontal bone, and to injury of the fibrous texture of the membranes. I believe, nevertheless, that inflammation of the Sneiderian membrane, by its sympathetic effects upon the entire system of the organic life, contributed much to aggravate that of the meninges, having discovered in the air-passages all the traces of the same inflammation. It is likewise not without reason that the ancients regarded wounds of the frontal sinuses as very dangerous, especially when air entered the nasal fossa, and it is on this account that they recommend the exclusion of such wounds, and every precaution which may prevent the exposure of the fine and sensible lining of the olfactory labyrinths to the air."

A cuirassier was struck by a horse so violently on the right eyebrow, that the external wall of the frontal sinus was broken to pieces, active hæmorrhage both from his nose and ears occurred, and he lay as dead upon the ground. When visited by Larrey he was insensible, his head was turned to the left shoulder, the body was of an icy coldness, and tetanic symptoms of the right side were manifest. The head was shaved, embrocations of warm camphorated vinegar were applied to the body, the loose portions of bone were extracted, and some clots of blood, which had been enclosed within the sinus, were removed. During this operation the patient bled freely by the nose and wound, and scarcely was the first dressing terminated before his senses and intellect were restored. Ice to the head, stimulating injections, diluents and other antiphlogistic remedies were employed, and as the pulse became strong and the temperature of the surface rose, a large abstraction of blood from the arm was practised. But, although all these means were assiduously employed, although the depletion was more than once repeated, pains in the occiput and in the region of the wound came on. These were somewhat appeased by making a deep incision into the integuments on the right side of the occiput, which were œdematous; but the right eye was lost, and about the 20th day nervous excitement appeared, some tetanic convulsions of the two extremities of the wounded side came on, and deep-seated pains were complained of along the entire right side of the head, which became so severe that this part could not be touched, even in the mildest way, without producing horripilation, convulsions and intense agony. Blood was successively taken from the arm, neck and foot, many cupping-glasses were applied to the nape, shoulders and spine, and ice to the head and stimulating baths to the lower extremities were continued. After some transient relief, the tetanic symptoms augmented, the right testicle swelled and gave excruciating pain, and, what is more remarkable, the hair and whisker belonging to the right side of the head bristled, and imparted a sensation of the most lively pain on the slightest touch. He was brought before the *Société de Médecine de la Faculté* of Paris, and, although his hair was cut by the very best edged scissors, horripilation, convulsions and a general painful tremor of the parts convulsed, extending even to the toes and fingers, followed the experiment. The author ascribed all these symptoms to a fissure of the right side of the occipital bone, to laceration of the subjacent dura mater, and to effusion either underneath this membrane, or the right posterior lobe of the brain. But as the patient left the hospital seven months after his accident, the sequel of the case is not given.

"We have hitherto devoted ourselves to a consideration of the differences, which exist between the lesions of different portions of brain, and the particular phenomena which characterize each of these lesions, with the view of establishing an accurate prognosis, and of indicating in a more precise manner, than has hitherto been done, the therapeutic means which are best adapted to their treatment. We shall now proceed to treat of such injuries of the head, as require the operation by trepan; 2dly, of such, on the contrary, as cannot be improved, but may be injured by this operation, in opposition to the assertion of many authors; 3dly, of the treatment necessary in cases of hernia of the brain; and lastly, of the causes of abscess of the liver after wounds of the head."

In elucidation of the first point eight very interesting cases are detailed. In the 1st, a soldier received a ball in the middle of his forehead, which pierced the bone, and, traversing along the left side of the longitudinal sinus, penetrated even to the occipital suture, where it stopped. By means of the crown of a large sized trepan a counter opening was made in the occipital bone, the ball was extracted, and a large quantity of clotted blood, mixed with purulent matter, escaped by the opening. The cure went on uninterruptedly, and the patient recovered. In the 2d case the ball penetrated the skull at the left parietal bump, grazed the internal surface of the parietal bone, and lodged about half an inch from the occipital suture. The trepan was applied over this latter part, the ball, which was partially encrusted with bone, was removed, fifteen days passed without being marked by any disagreeable symptoms, and had not the patient been unexpectedly seized with fever, there was no reason for anticipating any other than a favourable result. "These two cases," says the Baron, "prove, in opposition to the generally admitted opinion, that to search after foreign bodies within the cranium is not always a useless nor even a dangerous practice, when it is done prudently and with adroitness." In the 5th case a cuirassier was struck on the head by his horse, which had been newly shod. The stroke was so violent as to fell him to the earth, deprive him of sense and envelope him in blood. He was, however, immediately removed to the hospital of Gros-Caillou under Larrey's care, who had his head shaved and examined the wound, which was found to occupy the superior part of the right temple. The soft parts, covering this region, were divided for the space of two inches and a quarter, the temporal portion of the frontal bone was fractured, and some splinters of it were depressed. As, however, there were no symptoms of compression present at this period, the author contented himself with cutting freely down upon the injured bone, so as to expose the fracture—with detaching, by means of the rasp, that part of the pericranium which covered the fractured bone—with tying a few branches of the temporal and frontal arteries which bled, and with dressing the wound with adhesive plaister, charpee, a square compress and Galen's bandage. The patient was bled from the arm, sinapisms were applied to the feet, ice to the head, and cold diluent drinks were freely ordered. During the night he was bled from both the jugular vein and arm, and on the next day he was comatose, and laboured under hemiplegia of the left side. The pulse was small, and so slow as to number 45 strokes only in the minute; the bowels were confined, the bladder was incontinent, and the feet were cold. The dressings being removed it was attempted to raise the fractured portions of bone, but in vain, and the trepan was determined on as the only remaining hope. The fractured bone and about a spoonful of black blood, which

had been effused between the dura mater and cranium, were removed by the operation, and scarcely had it been finished when the patient was able to reply to any questions addressed to him, his pulse rose to 55, and in a few hours afterwards his hemiplegic symptoms disappeared. The hole made in the skull by the crown of the trepan, was filled with fine washed sponge—a practice which the Baron always follows:—light dressings were placed over it, and the remedies in former use were continued. On the ninth day all danger was gone, and he was afterwards presented to the Academy of Surgery as a man indebted for his life to the operation by trepan. The 7th case is very interesting, as strongly confirmatory of Larrey's doctrine, that "the trepan should be immediately employed in all fractures of the bones of the cranium, attended with depression of the fractured portion, injury, or depression of the dura mater and brain." It is, however, so long, and so much important matter still remains unnoticed, that we can thus merely draw the attention to it while passing.

Most authors have been unfavourable to the practice of applying the trepan over the frontal sinuses, as well as along the track of the meningeal arteries, on account of the indeterminate depth of these cavities. and the aerial fistulæ which they conceived afterwards to occur and fancied to be fatal. The author has, however, deviated from the old and ordinary custom, and has adopted this practice in two cases. The operation in each case was followed with success.

In defence of his second proposition—that the trepan is not only useless, but injurious in some cases where it is very generally recommended—he observes that—

"Already while considering the first proposition, we have specified, as one among the most serious exceptions to the operation by trepan, cases in which strange bodies, although introduced into the cranium, lose themselves in the substance of the brain. Of a similar nature are all those cases, where effused fluids either lie at a great distance from the cranial vault, or whose seat is entirely unknown. The trepan is likewise inadmissible in all wounds of the head, complicated with fracture of the skull, it matters not how extended the fracture, or how multiplied its rays, if the fractured portion of the bone be not depressed, and if no foreign body nor symptoms of compression appear. The cerebral disturbance is generally less in extensive wounds, attended with loss of integument and fracture of the bone, because the effects of the percussion are more confined to the external parts, especially when the stroke is directed in the diagonal of the cranial vault. In consequence of this circumstance the internal organs are saved, absorption of the effused fluids proceeds more rapidly, the fractured pieces of bone gradually re-unite, and the patient gets well by the unaided exertions of his own constitution. In such a case, therefore, the trepan, without doing any good, can only retard the cure."

Without attempting to give a definite solution to the question, whence arises *hernia of the brain*, Larrey observes that, when a portion of the brain is exposed by the trepan or an accidental fracture and removal of bone, it is deprived of that support and pressure which are natural to it, and in consequence of its spontaneous expansion, from its innumerable blood-vessels, this portion of brain tumefies, gradually rises through this artificial opening, and ultimately appearing at or above the surface of the bone occasions hernia. This extra-cranial portion of brain then begins to increase, and soon exhibits all the properties of vital erectility, refuses to be checked

by compression, or to be controlled by the knife. If compressed, excruciating pain is generally produced in the region of the wound, and if long continued, vomiting, convulsions, and syncope supervene. If amputated, the cut surface soon furnishes a fresh exuberance, which is merely encouraged in its reproductive process by repeating the amputation. In treating all such cases of disease, it is indispensable to consider that extensive hernia of the brain is one of the most formidable accidents which can accompany wounds of the head, and that those rarely recover who are attacked by it. The existence of hernia implies an extremely irritable state of the pia mater and cerebral vessels, as well as of a deep-seated inflammation in the substance of the brain, which it is difficult, if not impossible to remedy. With the exception of a single case, in which the extra-cranial portion was small, the Baron observed that all whom he ever saw with this affection perished, and the treatment which he recommends is, we fear, little calculated to encourage his readers to form a more favourable prognosis. It consists in—

“Applying to the protruded portion of brain a piece of fine linen, moistened with oil of camomile slightly camphorated, and in removing every cause of excitement, whether external, or within the skull. With this view it is necessary to extract with proper care all foreign bodies, to preserve the injured parts from the air, to prescribe an antiphlogistic regimen, and to employ such dressings as are mild, and cannot by their weight exercise any injurious pressure. When the encephalocele is susceptible of reduction, Nature then aided will herself gradually effect it, and the protruded portion of brain will gradually re-enter the interior of the cranium, like the epiploon when it has escaped through a wound in the abdomen.”

Why abscesses of the liver should so frequently succeed to injuries of the head, is a question which has been often agitated, and perhaps never yet satisfactorily answered. According to some they are regarded as accidental complications, having no etiological connection with the wound of the head, but the majority have been disposed to ascribe them to the concussion and violence sustained by the liver at the moment the injury is inflicted upon the head. This latter doctrine is supposed to be defended by many arguments, and perhaps by none more strongly than by the fact, that such abscesses seldom or never occur when the wounds have been produced by a cause, which confined its operation exclusively to the head, whereas they usually succeed to injuries, which have been inflicted with so much violence as to agitate and disturb the entire system. Larrey is, however, equally opposed to both these views, and is disposed to ascribe to sympathetic irritation of the liver those purulent formations, which occasionally complicate injuries of the head. He has often had occasion to observe, that the pulmonary and more especially the biliary systems were disturbed in their functions, and seriously affected by inflammation of the fibrous membranes of the head, or extremities, particularly of those which correspond with the organs situated on their side. The irritation, established in some portion of these membranes, rapidly propagates itself by sympathy, and the viscera, which are supplied by nerves from the great intercostal seems to be most obnoxious to the effects of this sympathetic irritation. The vital properties become disturbed, inflammation more or less rapidly appears, abscess at length forms, and when once formed co-operates with the original injury in effecting the patient's downfall.

But it is not exclusively after injuries of the head that these disorders in the hepatic organ arise. According to the present writer they are equally frequent after wounds of the ginglymoid joints of the extremities; and neither is the liver the only organ in which abscesses form after wounds of the head, for every other viscus, whether in the chest or abdomen, may also receive the communicated irritation, and present analogous derangements. The conclusions, then, to which the Baron arrives are—

“1st. That these abscesses rarely recognize, for their essential cause, any direct violence inflicted on the liver by the fall of the individual, or from the action of any body, which may have struck the right hypochondre. 2dly. That the cause of these abscesses after injuries of the head should be referred to the sympathetic irritation, which this organ receives from the inflammation established in the fibrous membranes of the cranium, or of the bones of the upper and inferior extremities, especially of those of the same side, and to a metastasis of the *ichorous miasmata*, or acrid fluids to this organ: and 3dly. That these communications of morbid principle between the liver and part originally injured are more easily effected, when they are not obliged to traverse the median line of the body.”

Passing over the author's section on *Apoplexy*, as it contains nothing of importance, *Injuries and Diseases of the Cerebellum* are the next subjects which are treated, and perhaps there is no portion of the volume which merits more attention. Experience has taught the Baron that active inflammation of the cerebellum, whether arising spontaneously or by accident, is constantly followed by an exaltation of the animal and organic sensibilities, without producing the slightest disturbance in the intellectual operations. When one only of its lobes is inflamed, this increase of sensibility is manifested in the same side with the injury, lively pains are felt in the occiput, horripilations, contractions of the muscles of the face and of the two extremities belonging to the wounded side, with a sort of painful formation in the toes and fingers are complained of. Vision is often disturbed, the horizontal position is preferred, forced extension of the spine produces convulsions and sometimes alarming syncope, and those tokens of deranged sensibility are more frequently manifested in the posterior than anterior surface of the body. If the inflammation terminate in suppuration, it is generally established immediately beneath the pia mater. The arachnoid loses its transparency and becomes thickened, but is without any red vessels; and by degrees the purulent matter extends into the proper substance of the cerebellum, and ultimately as far as the *arbor vitæ*. Feverish excitement, with transient apyrexial intervals, a dull and fixed pain in the occiput, a sense of weight in the head, loss of hearing in the affected side, absence of speech or difficult pronunciation, are among the most frequent symptoms, by which this morbid condition is recognized. If the cause, which alters the substance of the cerebellum, does not compress the nerves of the medulla oblongata, there is no paralysis, and the genital organs alone receive the effects of this morbid state; and should even the patient recover, which is a very rare occurrence, he is ever after annoyed with a feeling of excessive tenderness in the nape and occiput, asthenia of the genital organs, with atrophy of the testicle which corresponds to the diseased lobe of the cerebellum, or of both testicles, if the whole of this portion of the encephalon be affected.

Singular as these effects of diseased cerebellum upon the organs and functions of generation must appear, it is still more remarkable to observe the influence which diseased testicle exerts upon the growth and development of the cerebellum. If the Baron's statements and cases are to be depended on, and they are not quite solitary nor unsupported, it would appear that these organs—the cerebellum and testicles—act and re-act on each other, that disorder or disease in one, disorders and deranges the other, and that the effects thus mutually exerted are in a direct ratio to the extent and inveteracy of their disease.

"The genital organs seem to have a marked influence upon the cerebellum, for when they are removed by disease, or any other means, the occipital region of the cranium and cerebellum gradually experiences such a sensible reduction, that the occipital bumps, which had been more or less protuberant before, disappear, and the whole occipital region of the head is diminished in proportion. We have verified this change of dimension in a great number of soldiers, who had been operated upon for sarcocele, and when one testicle only was removed there was only a reduction of that portion of the cerebellum and occipital bump, which belongs to the same side, with the extirpated testicle."

A soldier, who had been wounded in the occipital region by a splinter of wood, was attacked with all the symptoms of inflamed cerebellum, and, in despite of every thing that was done, they were only dissipated by the appearance of an abscess in the nape, which opened spontaneously. In about three months after the accident he rejoined his regiment, and many years elapsed before he again came under Larrey's notice. He was then so extremely altered in appearance, that the author mistook him for a young conscript, who had been exhausted by some asthenic disease. He was 32 years of age, of middle size, but thin and pale, his eyes were depressed, his lips blanched, his hair, more especially that which covered his occiput, was thin and bristled, and a feeling of pain and coldness was always experienced in the back part of his head. He was beardless, his voice was feminine, and as some of the assistants were not without suspicion of his sex, a more minute examination was considered necessary.

"To our great surprise, (says Larrey,) we found his genital organs reduced to the size of those of an infant some months old. His penis was not more than five or six lines long, and two or three lines thick, it never exhibited any degree of erection, and his testicles were so wasted as scarcely to equal in size a small bean."

A Swiss soldier of the guards, named Granfort, fifty years of age, was received into hospital for an erysipelatos affection of the left side of the face, attended with habitual pain and weight of head, deafness of the left ear, and a great difficulty of speech. The pulse was febrile and the strength was much reduced. These symptoms were occasioned by a fall, which this man had sustained a few days before the appearance of the erysipelas. Emollients were externally applied; diluents and anodynes were internally administered. After some days fluctuation was felt, and a deep incision discovered a large abscess in the neighbourhood of the left mastoid process, which was denuded and carious in one point, where a communication had been formed between the internal ear, which was the seat of the abscess, and the external surface upon which it pointed. Five or six weeks afterwards the walls of this abscess were clean and began to

heal; still, however, pains in the occiput, a sense of weight in the head, and considerable difficulty in keeping the head from falling towards the affected side were complained of. He seldom spoke, and when he did he articulated badly. The integuments covering the occiput were very sensible, the arm and hand of the left side were threatened with palsy, but his mind was completely undisturbed. After two months convalescence this soldier fell into a state of lethargy, and died twenty-four hours afterwards. On inspection the dura mater appeared of a deep brown, the arachnoid was opaque and in some parts of a dull white, these membranes and the cerebral mass were filled with turgid blood-vessels, the consistence of the brain was firmer than natural, the lateral ventricles contained some colourless fluid, three spoonful of pus were found in the cerebellum, the right lobe was diminished, and the medullary substance forming the arbor vitae was dense and of a grey color. The purulent matter was effused underneath the pons varoli and into the lambdoidal fossa, where the carious opening lay which communicated with the internal ear, and around which the membranes had contracted adhesions. "The scrotum and penis were so reduced from their primitive volume, that one might consider them as being in the second stage of atrophy."

John Baptist Dandé, aged 26, of a scrofulous habit, who had been formerly under treatment for diseased spine, was attacked with pains in the left testicle, which swelled and obliged him to apply for relief. It was at first regarded as a consequence of suppressed gonorrhœa, although the soldier denied that he ever had any syphilitic symptoms, and he was treated in accordance with this view. The tumefaction of the testicle increased however, and extirpation of this organ was at length determined on. After two months the cure was supposed to be complete, and Dandé rejoined his regiment; but in about six months afterwards the other testicle became attacked with symptoms of a similar character to those which had been experienced formerly, and every effort to resolve the swelling and to save the organ being made in vain, the appearance of symptomatic fever and other malignant tokens of inveterate disease suggested the necessity of a second operation. No disagreeable symptoms followed—

"But, one remarkable thing is, that the nape now appears sensibly depressed, that the occipital bump, corresponding with the testicle first amputated, is much smaller than the right. The body is likewise emaciated, the beard and mustaches are nearly fallen off; and, in fine, it is obvious that the total loss of the genital organs has had a very marked effect upon the cerebellum, since the occipital region offers a profound and anormal depression—the consequence of atrophy, which also affected all the bones of the skull, the skin covering the face, and the beard."

These are most interesting cases, and the physiological as well as practical inferences, which arise from them, are of the first importance. We regret that space does not permit us to extract three or four others, which are of the same description; but we think that the intimate relationship which exists between the cerebellum and generative organs, both in health and disease, is incontestibly established. Before leaving this subject we may observe that, from some experiments which have been made upon inferior animals, there is reason to believe that the decrease, which the occipital region suffers by castration, is sometimes attended by a corresponding in-

crease in the frontal region. How far this anterior augmentation of cerebral capacity is connected with and influences the intellectual functions, the nature of the animals, which have formed the subjects of experiment, prevents all but the phrenologist from hazarding a conjecture.

Larrey's theory of *nostalgia* is novel. According to him the mental faculties are always the first affected in this disease and derangement of the senses follows. The head gets warm, the pulse becomes strong, the eyes sed, the speech precipitate and inaccurate, dull pains are felt in different parts of the body, and the bowels are constipated. To this feverish state succeed symptoms of compression and collapse; and, finally, asthenia declares itself with sad prostration of every mental, moral and physical faculty. On inspecting the bodies of those, who have died of this disease, the Baron has found the surface of the anterior lobes of the brain inflamed, with points of suppuration of variable extent. The arachnoid and pia mater were in a similar state, the cerebral substance was hardened, and its vessels were filled with black blood. The lungs were engorged, the cavities of the heart were occupied by black coagulated blood, the stomach and intestines were distended with gas, their mucous lining was injected, but not inflamed. Ossification, he thinks, of the sutures of the cranium and of the arteries of the encephalon predisposes to this disease, and its proximate cause he is inclined to ascribe to chronic cephalitis, gradually developed under the influence of a strong moral affection. The celebrated Fourcroy died of this distemper, and Lord Byron is supposed by Larrey to have sunk under a form of fever, which seemed to hold its seat in the brain, and to have a strong resemblance to *nostalgia*. The necropsy of Byron is similar, no doubt, to that of the nostalgic, dissections which he gives as marking this affection. The thickened and suturless skull, the firm adherency of the dura mater to its internal surface, the injected condition of the cerebral vessels, and the large quantity of serum which occupied the cavities of the brain—are all indicative of cerebral action; but it is well known that this illustrious man always expressed himself happier when at a distance from his country, than when at home.

For the treatment of this wretched and obstinate affection the author recommends moderate depletion, constant occupation both of mind and body, variety of business and amusement, change of scenery, enlivening music and agreeable society. Vigarous, a Professor at Montpellier, was accustomed to cure all our hippish countrymen, who consulted him, by enjoining them to take active exercise, and by giving them medicated *placebos* at an extravagant price. Our German Spas, our Cheltenham, and our Buxtons owe much of their efficacy on invalid constitutions to the pure air, active exercise, agreeable society and total relief from anxious occupations, which such places furnish to the invalid; and even a trip to Gravesend, or a walk to Richmond is often more efficacious than the prescriptions and purgatives of half a year.

Some curious physiological observations are made on the nerves of animal or exterior life, and on the resemblances which are observable between them and the *electrical telegraph* of Soemmering. This telegraph consists of about 35 fine metallic wires, which are connected and communicate with what Soemmering calls the *interrogator* and *respondent* of the instrument. The *interrogator* is composed of a series of horizontal metallic

cross bars, separated by equal distances, and distinguished by being marked at one end with the different letters of the alphabet. Each of these bars has at one of its extremities one aperture, large enough to admit the points of two electrical conductors, and another much smaller for the passage of a metallic wire. These wires, at first separated at their points of insertion, and isolated in their whole extent by threads of silk, are afterwards brought into juxta-position and variously intertwined, so as to form one common cord; and, after running along for some space in this form, they again separate, diverge and anastomose or articulate with points of gold, which are vertically placed in a square glass vessel, filled with pure water, which is called the *respondent*. The same letters, which mark the cross-bars of the interrogator, are also placed over these points of gold in the respondent. When electric or galvanic fluid is transmitted by means of the two conductors, coming from the two poles along these metallic wires, it is prevented by the intermediate silk threads from passing through one wire to another, and goes directly forward to render itself at the corresponding gold points in the respondent. The electricity, which issues from the negative pole, disengages hydrogen from the water in the jar, and that proceeding from the positive pole produces a similar disengagement of oxygen. These gases, rising in bubbles to the surface of the water, are received into gazometers, so that it is easy to determine the nature and the quantity of these gases generated in a given period of time. Now, says Larrey, the nerves of animal life are disposed in the same manner, and present in their functions analogous phenomena. For example, the seventh pair consist of two distinct nervous cords. The auditory portion arises by two or more small fibrillæ, from one part of the brain; the facial portion arises from another. The former, more elevated towards the positive pole of the medulla oblongata, is destined to form the organ of hearing; the latter, being nearer the negative pole, is destined to supply the muscles of the face with motive power and the skin and glands with sensibility. A similar disposition holds with the lingual nerve, of which one part serves for taste and another for speech, each having a different organ. The branches of the median nerve, which supply the muscles of the arm, fore-arm and head, do not arise from the same part of the spinal marrow with those which it sends off to endow the skin with sensibility. The neurilema acts the same part to the nervous fibrillæ, which the silk threads do to the wires of the telegraph; and the common membranous sheath, which surrounds the nervous trunk, represents the silk ribbon which envelopes the metallic cord of this instrument: so that the electrical telegraph of Soemmering, according to Larrey, may be styled the *simulacrum nervorum*.

"All this proves that the intellectual and sensitive functions are executed by distinct agents, which give different results, although they communicate and sympathize. Thus, we shall suppose that the nerves, which arise from the negative pole of such or such a pile, give motive power to the muscles or conductors which are of a stronger and more active principle. To take for an example the pile or the medulla oblongata, which has for its base the centre of the medullary substance of the brain, I believe that all the nerves of sensation arise from the superior part of the positive pole, which in Soemmering's telegraph disengages oxygen—such are the olfactory, the auditory, the optic nerves. Whilst those, which supply functions requiring greater intensity of power, such as those of the muscular tissue, take their origin from a more inferior part of the medulla, or towards the negative pole, which in the telegraph produces hydrogen."

How much truth is mixed up with this theory of the difference between nerves of sense and motion, it would require more time and consideration to ascertain, than the present place can furnish; but we cannot but express regret, that not the faintest allusion is made throughout all this discussion to the ingenious discoverer of the differences themselves. Larrey has, surely, no reason to harbour jealousy against either nations or individuals. He has been amply rewarded by his country for his zeal and success in advancing surgery; and he will not the less enjoy the harvest of his labours, by respecting the claims of Bell, or any other celebrated *exotic*, whose improvements are not the fewer, because their remunerations have been more economically awarded.

After a few observations on some lesions of the ear, and a rather operose description of the conjunctiva of the eye, the author divides the morbid alterations, which the globe of the eye sustains, into such as are produced by concussion, and actual solutions of continuity.

A brigade officer, during the battle of Aboukir, was struck by a ball on the external side of the right orbit, which so disturbed the right eye, without injuring the external skin, that it was wholly deprived of its visual faculty. A severe pain was felt at the bottom of the orbit, followed by weight of head, effusion of blood into the chambers of the eye, and engorgement of the conjunctiva. After topical bleeding and other local measures, Larrey gave exit to the extravasated blood within the eye by an operation; the patient immediately saw the light without being able to distinguish objects, every symptom gradually disappeared, and the cornea healed without opacity, or any sensible deformity.

The following case is very singular. Pêcheur, a serjeant in the Royal Guards, received so violent an injury on the left eye by a fall, that the globe of the eye was burst, and the crystalline lens, together with the aqueous and vitreous humours, were forcibly expelled. The palpebræ were ecchymosed, the conjunctiva was red and bloated, and the lower part of the cornea was separated from its attachment to the sclerotic by an irregular cut, through which a portion of the iris protruded. The parts were washed, the iris was carefully returned, the divided edges of the cornea were approximated, the eyelids were drawn close and retained so, and a quantity of blood was drawn from the temporal artery. Ice to the head, sinapisms to the feet, constant darkness, and a rigorous diet were enjoined. During the night a second bleeding was practised, and the next day cupping-glasses were applied to the nape and between the shoulders.

The Baron had very naturally, it will be admitted, considered this eye as lost, or at least for ever deprived of the faculty of sight; but, *a notre très-grande et agreable surprise*, the globe gradually refilled, on the 22d day the cornea began to assume a healing aspect, and in about six weeks it was perfectly cicatrized. The natural form and almost ordinary volume of the organ were restored, and by the aid of a very convex glass this soldier came to see objects distinctly, and continues to discharge all the duties of his office. "This very curious case evidently proves, that the vitreous humour, although in greater part lost, can be regenerated," and that the crystalline lens may be dispensed with!

It has been very generally believed that the *iris* derives its contractile power from the influence of the optic nerve, or retina, and hence has it been recommended not to operate for cataract, especially when extraction is necessary, if the iris appear motionless. The author, however, opposes this doctrine by arguments numerous, if not convincing, and contends that the properties of this membrane depend exclusively on its own texture, and on the ciliary nerves which are sent to it from the lenticular ganglion of the great sympathetic. Cases of amaurosis, he argues, are met with in which the iris retains its contractility—wounds inflicted on the nerves, by which its mobility is supplied, have palsied this membrane, while the faculty of sight remained unaffected, and belladonna suspends its contractility without disturbing any other function of the eye ;—these and other arguments, which are illustrated by cases, but to which we can only refer, are argued by Larrey to prove that the iris is independent in all its functions of the optic nerve.

Ophthalmia, and especially the endemic ophthalmia of Egypt, is the next disease treated of. With the exception of the gonorrhœal form of this disorder, he strenuously contends for its non-contagious nature, and considers it important both to the interests of science and to public tranquility, to dissipate any impression which may exist of a contrary character ; and with some ingenious remarks upon the causes, varieties and treatment of *epilepsy*, he concludes one of the most interesting and valuable volumes, which for a long time we have had the pleasure of perusing. As opportunity offers, we shall not neglect to draw the attention of our readers to the remaining portions of the *Clinique Chirurgicale* ; and should we find them executed with the same talent and success, by which the present is characterized, the name of Larrey, justly honoured and highly exalted as it already stands, will go down to posterity with purer claims on their esteem and gratitude, than any which can be presented by that of the mighty and almost masterless conqueror under whom he served.

II.

WELLESLEY FEMALE INSTITUTION.

REPORT OF THE WELLESLEY FEMALE INSTITUTION. By *Samuel Cusack*, M. B. Assistant Surgeon to the Institution for Diseases of Children.

[Dublin Hospital Reports, Vol. V.]

THE business of the above institution is conducted by a superintending accoucheur, assisted by competent pupils who reside in the establishment, recourse being had occasionally to consultants. The number of labour cases since the opening of the institution (the time not stated) up to the end of 1828, was 398, out of which, three cases only required instrumental aid—one the forceps, two the perforator. There were twelve cases of pre-natural labour—four, where the upper extremities presented—eight, where

the breech or feet presented. In all the four, where the upper extremities presented, turning was performed—and all the lives of the mothers were saved. In two, the children were still-born. In one case, the contraction of the uterus was so violent, the hand was obliged to be withdrawn, and 120 drops of laudanum exhibited, after which the operation was performed with facility.

In presentations of the lower extremities the mothers were all saved, and the only instances where the infants were sacrificed were those where the head had been jammed in the pelvis by ill-directed attempts at extraction previously to admission. These cases were almost entirely left to themselves till the breech was expelled, when the usual attention was paid to insure that the face of the child should be turned towards the sacrum of the mother. After the extraction of the arms, the chin was depressed by placing the finger in the mouth of the child in the usual way, so as to give the head the direction of the axis of the pelvis, and to cause biparietal, instead of the occipito-mental, to be the moving diameter.

“In five cases the funis was protruded. In some of these cases the pulsation had ceased previous to application for assistance; in the others none of the means recommended in such cases for the preservation of the child appeared admissible. Of six cases of puerperal convulsions, two occurred between the fifth and eighth month; in one, the fits were always induced by constipation of the bowels, and after this cause was removed, did not re-appear. One case occurred after parturition; the cause was similar to that of the preceding case. The patient recovered under the employment of venesection and purgatives; of the remaining cases of convulsions, all of which occurred during labour, one patient was delivered by turning, during which operation the fits were suspended, but recommenced after delivery, and carried the patient off. Another was delivered by the crotchet, who recovered from the convulsions, but subsequently died of peritonitis. In another case (a first pregnancy) the convulsions appeared at the commencement of labour, the membranes were ruptured by the finger, twenty ounces of blood taken from the temporal artery, cold applied to the head, and injections and purgatives administered. The fits however continuing, the forceps were applied when the head was sufficiently low, and mother and child were both saved.

The convulsions appeared in one instance about twelve hours after the birth of the first twin, the woman having been improperly allowed to remain undelivered, of the second all that time. The forceps were promptly applied, and the second child extracted without difficulty, but dead. In this case, instead of the patient being comatose between the fits, she exhibited all the symptoms of delirium ferox, the birth of the second child not seeming to have any effect on her condition, but after the extraction of the placenta, she became perfectly tranquil, and the fits did not again appear.” 498.

In a recent case which the author attended with Dr. Nicholson, and where eight fits of well-marked convulsions occurred in the course of twelve hours, the os uteri was found dilated to the size of a half-crown, the head presenting, and the membranes ruptured. By means of copious bleeding, shaving the head and cold applications, with the internal use of scammony and calomel, and lavements, the convulsions were completely subdued, and the patient was delivered naturally of a dead child, after an interval of thirty hours, during which she remained rational.

“This case contrasted with one already related, where the convulsions had ceased on the delivery of the patient by the perforator, but in which fatal peritonitis supervened, would

lead us to conclude, that artificial delivery ought to be limited, except when the pelvis is deformed, to those cases where the forceps can be used, and that turning, or the perforator, should be employed only in those cases where, from the condition of the parts, there appears no risk of exciting inflammation; indeed unless there be strong proof of the death of the child, or we have to deal with a narrow pelvis, it does not seem that under any circumstances is the use of the perforator justifiable. There can be no doubt that convulsions will often cease on artificial delivery being performed, even though in a rude violent manner, but the result in such cases usually is the death of the patient by peritonitis." 500.

The author considers that opening the bowels is not of less consequence in the treatment of puerperal convulsions, than bleeding. Cold to the head is a very powerful auxiliary.

There are cases, he believes, where the disease is the result of nervous irritability rather than of plethora, and, in such cases, the two free abstraction of blood will only hurry the disease on to a fatal termination.

Hæmorrhage occurred in six cases during labour, caused by the attachment of a small portion of placenta over the os uteri. In all, it was arrested by the rupture of the membranes. In fifteen cases it was deemed necessary to remove the placenta by the hand. The number is large but is accounted for by the fact that many of them were cases where assistance was called for on account of retention of the placenta alone, the consequence of previous mismanagement. In five out of these fifteen cases, there was hour-glass contraction of the uterus. In one only was there any difficulty in the removal of the placenta, where, co-existent with the stricture of the uterus, there was violent uterine action, and high excitement, both nervous and vascular. Venesection and opiates were employed previous to any attempts at extraction. These, however, did not lessen the difficulty of the operation, and the patient died of venous hæmorrhage ten minutes afterwards.

"In five cases hemorrhage occurred previous to the delivery of the placenta. Two of these cases were of hour-glass retention: in one sudden death took place about six hours after delivery, although the placenta had been removed without difficulty, and the patient appeared to have completely recovered from the loss of blood, which had not been at all extensive; no hemorrhage occurred externally, nor on the post mortem examination did any appearance present itself sufficient to account for her death. The uterus had contracted well, and no coagula were found in its cavity." 502.

A few hæmorrhages after the delivery of the placenta were arrested by pressure over the uterus, the application of cold, quietude, and fresh air.

"A considerable number of abdominal inflammations presented themselves; at particular periods they were exceedingly prevalent, at other times equally rare. The type of these inflammations varied with the periods of their appearance. In December and January, 1827-28, the peritoneum seemed to be the structure most deeply engaged, and the inflammation to be of a phlegmonous character. In March the disease assumed the low typhoid character. In May, 1828, several cases were met with in which the intestinal mucous membrane was the seat of disease; they were characterized by thirst, redness of tongue, or white coating with florid papillæ interspersed, intolerance of light, headach, and obscure abdominal tenderness." 503.

Cases of abortion were very numerous. Relief was sought, in some cases, for hæmorrhage, in some, for retention of part of the ovum—in

others, for derangement of general health consequent on the miscarriage. Hæmorrhages were easily suppressed by the usual means. Excepting after the sixth month, manual extraction of the placenta was not attempted. Enemata, purgatives, friction of the abdomen, and binding were the means employed for expulsion.

"Amongst the most frequent of the diseases of females, were those connected with the function of menstruation. In the treatment of those cases more attention was paid (with some exceptions) to the constitutional, than to the local symptoms, and what are considered specific or directly emmenagogue medicines were but rarely exhibited, and never found effectual. The catamenial derangements consisted in total suppression, in diminution, in excess, in irregularities attendant on their final cessation, and in distressing accompanying symptoms.

These states were accompanied by two very opposite conditions of the system, debility and plethora. In the former, the object principally held in view was to improve, as much as possible, the general condition of the system; in the latter and less frequent condition, depletion, either topical or general, was employed." 504.

Cancer uteri was often met with. In all instances, the disease was so extensive as to engage all the soft parts in the neighbourhood of the os uteri:—thus shewing the extirpation of the uterus at that period of the disease, was totally inapplicable.

"Some instances occurred in which the os uteri was tumefied, irregular, and tender to the touch, accompanied by a muco-sanguineous discharge, by pain about the back and thighs, anasarca of the lower extremities, loss of appetite, debility, and sallowness of the countenance. They were treated with alterative doses of the pil. hydrargyri, followed by mild saline purgatives combined with bitters; strict attention was paid to their general and dietetic management, and in every instance a perfect, though in some, gradual, recovery ensued." 505.

The above is an important fact, and points out the necessity of strict investigation, before we condemn, as malignant, cases that may be only obstinate or tedious—and thus submit patients to the hazard of a dangerous, often an unsuccessful operation.

Two cases of polypus uteri occurred, in which the patients were reduced to a state of great debility. The tumours were removed by the ligature, and the patients recovered perfectly.

"In one case of polypus uteri, where the patient had been exceedingly debilitated, the pulsation of the large vessels about the neck was visible at a distance for some months, so that, on a superficial inspection, she might have been supposed to labour under disease of the heart. 506.

Mammary abscess was frequently arrested in its progress by the exhibition of emetic tartar. The secale cornutum was employed in 12 or 14 cases. In six it produced no sensible effect; but there was reason to believe that the medicine was not good. In three instances, where the dose was half a drachm at a time, apoplectic symptoms ensued.

"In a case of breech presentation, in a female who had borne several children, ten grains of ergot, given in infusion, were administered; she had not had any pains for the entire of the preceding night. Pains, however, came on so immediately after the administration of the ergot, as to leave no doubt on the author's mind of its efficacy in that instance. Amongst other instances, a case was treated by Mr. Dashwood, an extremely intelligent pupil, where

the placenta, after three hours' retention, was expelled by uterine action consequent on the administration of the ergot, though in the two preceding deliveries of the same patient the placenta was extracted by the hand." 508.

One case of severe puerperal inflammation of the joints occurred. The placenta had been removed in consequence of hæmorrhage, and the patient was going on favourably till the 7th day, when she was attacked with febrile symptoms and inflammation of the knee and ankle of one leg. The fever was of a mixed character, accompanied by much gastric derangement and acceleration of the pulse, without hardness. The pain in the parts preceded the other symptoms of inflammation; but, in a short time, the joints became red and swollen, the calf of the leg participating in the tumefaction. The pain was so violent as to deprive the patient of rest, and to require large opiates. Calomel, opium, and emetic tartar to pyalism constituted the principal means of cure, with frequent application of leeches. Sulphate of quinine, with compound tincture of gentian was found useful towards the close of the malady. "*In no stage whatever of the disease were any symptoms of venous inflammation discernible.*"

"Two cases of hydatids of the uterus were treated; both of the individuals were married, and one had previously children, and experienced, with the exception of feeling the movements of the child, the usual symptoms of pregnancy. One patient had a constant discharge of a yellowish colour; the other was free from any vaginal discharge till a few days before the expulsion of the hydatids, when there was a slight discharge of blood. In one instance the hydatids were expelled without much accompanying hemorrhage; in the other, there was a considerable loss of blood. The patients were treated, after the expulsion of the hydatids, like puerperal patients; one of them had a considerable quantity of milk in the breasts for a few days, and has since borne a living child. The hydatids expelled in one case amounted to upwards of a gallon; they were of an elliptical elongated shape, connected together by delicate pedicles, and surrounded by a cyst, resembling the decidua." 512.

One patient had a malignant tumor of the os uteri. Five months previous to application she was in good health. She had borne several children.

"On examination per vaginam, a tumor, as large in circumference as a dollar, but much thicker, was found growing from the lower part of the cervix uteri. It was firm and elastic, and a portion of the cervix uteri could be felt above the tumor, apparently free from disease. After endeavouring as far as it was possible to improve the patient's general health, a ligature was applied as high up as the cervix uteri, by means of the common double canula." 513.

In the progress of the case the ligature was tightened occasionally; but, on the 16th day, the cervix uteri, not being completely divided, was drawn down, and severed across with a bistoury. For upwards of a month, the patient appeared to be doing well; recently, however, the ulceration recommenced at the place where the tumor was separated, and all the former distressing symptoms have returned. Still the case is important, as shewing how far the uterus will bear, with impunity, the application of the ligature, there being no threatening of peritoneal inflammation or retention of urine, during the time the ligature was on the uterus. The author, in future, would prefer the knife to the ligature. We must close this review of Dr. Cusack's paper with the following case.

UTERINE HÆMORRHAGE AFTER DELIVERY.

"The patient, a healthy young woman, was much excited, apparently in consequence of having taken some spirits. Her face was much flushed; pulse 130, full and strong; enema and aperient medicines had been administered without any effect, and no uterine action existed. As the vascular excitement seemed the result of a temporary cause, it was not deemed necessary to have recourse to venesection; and lest some untoward event should occur, it was deemed advisable to deliver the patient; accordingly turning was performed, not without some difficulty, in consequence of the height in the uterus at which the child was placed. It however was born alive, and what was remarkable, very soon became a fine child, while the infant that was born naturally died in a few days.

Every means were taken to promote the safe expulsion of the placenta, which in about half an hour was expelled naturally, and the uterus became hard and well contracted. In a short time however, most violent uterine hæmorrhage came on; cold was promptly applied to the region of the uterus, and pressure made over that viscus, by which means the hæmorrhage soon ceased.

In this instance the patient did not become at all faint, nor was any internal stimulus employed except cold water, and the only effect produced by the loss of blood was the reduction of the pulse from 130 to 90, which also became proportionally soft; a very desirable result. This was evidently a case of hæmorrhage resulting from vascular excitement, and shews the necessity of preventing, by attention to temperature, diet, drinks, &c. during labour, so unfavourable a condition of the circulation." 517.

III.

THE LIFE OF JOHN WALKER, M.D. late Director of the Royal Jennerian and London Vaccine Institutions. By *John Epps*, M.D. Director of the above Institution, &c. Octavo, pp. 342, London, 1831.

THE name of John Walker is familiar to the ears of the whole profession; and the person of that remarkable individual will be remembered by all those who have been educated at the Borough schools during the last quarter of a century, in consequence of the eccentricity of manners which he displayed in the Physical Society, where he was a very constant attendant—and not seldom the source of considerable merriment. His unwearied zeal, not to say enthusiasm, in the cause of vaccination, and of humanity in general, has also familiarized him with, and endeared him to the hearts of all philanthropists in and out of the profession. The life of this singular personage has been more eventful than that of most medical men—and as delineated in this volume by the able pen of his friend and successor Dr. Epps, forms one of the most amusing and instructive pieces of medical biography in the English language. The interest and the merits of the book would be sufficient passports to public patronage—but there is a still higher consideration in question. The publication is brought forth for the benefit of the widow. The work is dedicated to the WORLD, for whose good the life of Walker was spent and devoted—and it is to be hoped that the WORLD will make some return by promoting the welfare of his surviving partner.

From a long acquaintance with Dr. Walker, we can well believe Dr. Epps, that there was, "amidst the numerous papers left by him, a chaotic confusion." It must have cost the biographer no small labour to draw order out of chaos on this occasion. But we shall now proceed to exhibit a rapid sketch of this most extraordinary man's life, recommending, in the strongest terms, the whole work to our readers, convinced as we are that they will be well repaid for their time and money, by the treasure of anecdote and the fund of moral and humane sentiment which this volume contains.

Dr. Walker was born in Cockermouth, county of Cumberland, on the 31st July, 1759, where he and the late celebrated Dr. Woodville were school-fellows. Young Walker was the idlest of boys at his tasks—the most active in play. Finding that the master generally took a nap while he was saying his lessons, he hit on the plan of getting a few lines at the beginning and end, thus calculating on non-detection of all the intermediate errors.

"Cultivating this dependence, he learned generally only two or three of the first lines, and a few at the end of the lesson. Before completing the few he knew, the master began to nod. Young Walker kept his eyes fixed upon the sleeper, keeping up, at the same time, a humming sound, without articulating a syllable, till the master, giving a greater nod than usual, awoke, when the young rogue repeated the last line of his task and went to his seat. When the honest pedagogue was sufficiently on the alert, the deficiency was detected, and Walker, flagellated, was sent to his form." 5.

Walker's father was a smith and iron-monger in Cockermouth, and after leaving the grammar-school, the son, on mingling in the fracas of the bellows, the hammers, and the anvils, was soon adorned with the insignia of his occupation, the leather-apron, consecrating cheerfully his power to the forge, by inscribing on its entrance the Roman poet's description of the forge of Cyclops:—

"The hissing steel is in the smithy drown'd."

Five years passed away in this manner, the young Walker not doing much, however, of the laborious drudgery, but employing himself a good deal in the mechanical construction of scale-beams, locks, and other pieces of machinery not very complicated in their nature. A temporary residence at his father's house of a broken down tradesman from Dublin inspired young Walker with an ardent thirst for drawing and engraving, in which branches he made some progress. But, in fact, though Walker had a smattering of many things, he had no perfect knowledge of any thing, and found himself, at the age of twenty, "the most helpless of creatures." At this time a sudden resolution seized the mind of young Walker—to enter as a common sailor on board a *privateer*! His father gave him a quantity of scale-beams to dispose of in Dublin, where the privateer lay, and away went the youth in quest of adventures. By the time he reached the Irish metropolis, in 1779, the privateer was captured, and there was a hot press prevailing for men-of-war's men, a situation which Mr. W. did not seem to relish. He therefore settled in Dublin—sold his scales—became acquainted with some of the young Dublin rakes, and was engaged in many a midnight row and revel.

At length he placed himself under Esdale the engraver, and spent four years in the pursuit of engraving, and Walker's *Hibernian Magazines* for 1780-1-2-3, contain many plates of his execution. Walker excelled in landscape; and while pursuing his studies in this line, he bettered his acquaintance with the dead languages, in which he had hitherto made but little proficiency.

With that versatility and love of change which characterized his whole life, Walker now suddenly turned schoolmaster, and by dint of perseverance, got up a school containing 100 scholars. Walker now became a Quaker in sentiment and religious views, but the Society of Friends would not admit the young candidate within their pale, fearing that he had too much learning to be religious. In the midst of his scholastic struggles, he turned author, and published his *System of Geography* and his *Gazetteer*, which made some noise in their day. While constructing these works he was so poor that he could scarcely afford to buy candles whereby to study after school-hours! In 1792 he made the attempt to publish, on a large scale, the second edition of his *Geography and Gazetteer*, which did not turn out successful, and obliged him to give up his school and come to London, after ten years spent as a pedagogue—one of the most irksome occupations, we should think, to which man was ever doomed!

In London, Walker became acquainted with a navy-surgeon unemployed, and here he took a violent predilection for medical studies—entered himself as a student at the Borough hospitals, though on the wrong side of thirty years of age, and spent three years in the ardent pursuit of professional knowledge. Always desirous of change he went to the Continent in 1797, and visited Paris in the garb of a Quaker, where he was civilly treated, and permitted to ramble about unmolested, and indeed to the great entertainment of the mercurial Parisians. In 1799 he obtained a degree at Leyden, of Doctor in Medicine—and soon afterwards returned to England, where he became united to the object of his affections at Glasgow. Dr. Walker maintained that marriage was a civil contract—not a religious ceremony; and by this doctrine gave still greater offence to the Quakers, who still kept him out of their brotherhood. He now took up his residence in MODERN ATHENS, and studied there for some time, making the acquaintance of many eminent professors, among others, Dugald Stewart, to whose table Dr. W. was often invited.

In 1800 he was invited by Dr. Marshall to accompany him to Naples, for the purpose of introducing vaccination into the Neapolitan states. He took passage in the *Endymion* frigate, and the voyage furnished the eccentric Quaker with many topics for remark—many subjects of wonderment and admiration. His description of beating to quarters, and clearing for action, in the night, is not bad; though not quite so spirited or faithful as Dr. Eppe's imagines. It is, however, quite graphic enough for general readers. The Doctor remained at Gibraltar three weeks, introducing vaccination among the military and civil population. From Gibraltar the vaccinators proceeded to Minorca in a Florentine frigate. At Mahon the vaccine virus failed, and they were obliged to send back to Gibraltar for fresh virus, which succeeded. They then visited Malta, and there introduced vaccination. After a short visit to Naples and Sicily, Dr. Walker

proceeded with the English fleet for Alexandria, leaving Dr. Marshall at Malta. Dr. W. was present at the landing of the troops and at the battle where Abercrombie lost his life. He first directed his attention to the relief of the wounded—and then prosecuted his vaccine labours with success. The Pacha of Rosetta made him a present; but it appears that he was scurvily treated by the British Government, and actually wronged out of money which he laid out for the use of the sick. But mismanagement and misrule were too much the order of the day at that time. They are not very likely to return.

We imagine that by proper documents and proper representations, the widow would still receive the trifling sum which ought to have been awarded.

An amusing anecdote is here related of the eccentric doctor.

"Dr. Walker had, as the reader will have perceived, the courage to be singular. He allowed, while in Egypt, his beard to grow, so as to look very like a learned Jew. One of the young and thoughtless friends of his mess drew in chalk the French insignia, so hateful to the Turks, the *fleur-de-lis*, on his big white hat. Rising from dinner, the hat was put on, and, falling into one of his musing moods, the bearded sage wandered through Cairo without any uniform. Conceive his astonishment, when in the midst of his meditations, some Turkish soldiers fell upon him with great violence, believing—notwithstanding all his assertions to them, in an unknown tongue, that he was 'Inglese'—him to be a Frenchman. And let Britain be ashamed of her sons (many of them now, it is true, no longer able to abuse the name of their God), when they read the fact, that the Turks, in order to satisfy themselves whether Dr. Walker was or was not a Frenchman, uttered the oaths, 'God d—,' 'by God,' inferring that, if the subject of this memoir was an Englishman, he would understand a language which they had heard so generally used. Dr. Walker, horrified at the oaths they uttered, especially as coming from strange lips, instead of smiling assent, as they expected he would were he 'Inglese,' shook his head. This they understood as a mark of his not understanding them, and, consequently, that he could not be an Englishman! And the Arnhaut, who had applied this test, smiled triumphantly on his companions at his skill in detecting the Frenchman. They, therefore, seized him and took him to prison to the citadel. The prison doors were before him; and Dr. Walker, thinking that he might be put into one of the dungeons below, where he would, most likely, be never more thought of, gave himself up as one no more to enjoy the delights of home and its social pleasures. Much to his happiness, however, they bade him ascend a staircase, running their bayonets into him and knocking him with the butt-ends of their muskets behind as he ascended. While thus maltreated, and in such peculiar peril, an English patrol happened to be passing, who informed the commanding officer who the bearded philosopher—imagined by the soldiers to be a French servant—was, and Dr. Walker once more experienced the sweets of liberty after enjoying the delicious dish called *killaw* with the officer and the Musselmans, who accommodated the unbeliever with a low stool and wooden spoon, while they sat cross-legged and with naked hands helped themselves to the savoury mess." 53.

With all due veneration for the Doctor's rigid morality, we conceive that he would have been a very great fool to have sacrificed his life rather than utter the only words by which the ignorant Turkish soldier could distinguish him from the then enemy of their country.

Most men would have shaved off beards that were likely to bring them into so many difficulties. Not so Dr. Walker. "His beard singularised

him; and he loved to be noticed." He entertained also some absurd notion that this ancient ornament protected him from certain cutaneous diseases of the climate. By sleeping in the open air, one night, he was seized with a paralytic affection, which made him anxious to return to his native land. After several personal adventures, not of a very formidable nature to those who have journeyed in foreign lands, but which must have appeared very interesting to a cockney-traveller, Dr. Walker embarked in the *El Carmen*, and returned to England.

"Delightful indeed did the green fields of England appear to the subject of this memoir, and he would willingly have taken possession of the first boat that came alongside, when anchored at Spithead, to hasten ashore." 63.

But the quarantine was put in force against him and all his companions except Sir Sidney Smith and Col. Abercrombie, who were immediately liberated, in consequence of their despatches, and allowed to proceed to London. The worthy Doctor inveighed against this "distinction of persons;" and certainly it is vexatious as well as ridiculous in a medical point of view—but the Doctor was old enough to know that, in all countries, there is one law for the powerful and another for the weakly—that *CONTAGION* is only communicable through particular channels—and that the quarantine doctors could prove, by the most irresistible arguments, that the plague might lurk in the *beard* of a *WALKER*, though quite incapable of taking up its quarters in the *whiskers* of a *SMITH* or an *ABERCROMBIE*. The poor Quaker was an infant in medical politics!

After a fortnight's repose at Stonehouse, Dr. Walker repaired to London, and in August 1802 commenced the practice of vaccination at the house of the late Mr. Fox, the celebrated dentist. He soon formed the idea of a public institution. This was soon effected, and called the Royal Jennerian Society. It is a curious fact that his present Majesty, then Duke of Clarence, was one of the first patrons and supporters of the vaccine establishment. Dr. Walker was elected resident inoculator; but some intrigues being called into play and parties formed against him, he resigned the office. The Doctor now appeared to be in a worse state than ever; but some of his friends laid their heads together, and a new society, the *LONDON VACCINE INSTITUTION*, was the result. It was carried on in Salisbury-court, where all the patients of the old institution flocked. In this state of things, Mr. Rose brought in a bill in parliament for the support of the old or Jennerian Institution, and £3000 per annum of the public money was voted for that purpose. The life of Dr. Walker, after this, is the history of vaccination, and this we must pass over. The following passage will shew the activity of the Doctor to the hour of his death.

"Dr. Walker, in other words, was the monarch at the vaccine stations. His was the despotism of knowledge; and he delighted in the exercise of this kind of despotic power as much as the autocrat of the Russians does in his. Thus gratified, and impelled likewise by a sense of his duty, by the delight of doing good, and also by the pleasure of cherishing a cause of which he was the principal support, it is not a matter of wonder that he should have never missed a day, from the time when he was appointed till within a week or two of his death, in visiting the stations. It is becoming that these stations, at which he attended, should be noticed, in order to shew to the public the immense amount of service he contributed to the general good. At nine a.m. Dr. Walker was to be met with at 215, Strand;

at quarter past nine, at 337; at half-past nine, at 29, Haymarket; at a quarter to ten, a. m., 27, Lisle-street; at ten, a. m., at 3, Broad-street, Bloomsbury; at a quarter past ten, at 144, High Holborn; at half past ten, at 63, High Holborn. From that station he went to one of the principal stations, at 1, Union Court, Holborn Hill (still retained by the Society), at eleven; from this he proceeded, at about a quarter to twelve, to 4½, Salisbury Court, Fleet-street, and then returned to his own house, at 6 Bond Court, Wallbrook, where he vaccinated at two, p. m. Besides these journeys, on every Monday, he went to the vestry of St. John's Church, Horsleydown, kindly granted for the use of the Society; thence to the Lancaster Royal Free School, 5, Thomas-street, Borough Hospital; and thence to the South London Dispensary, No. 1, Lambeth Road.

Such was the life of this man of benevolent industry. Day after day he went his round. Sunshine or rain, it mattered not. Vaccination was the longing of his soul; and nothing was sufficient to draw him from his course. Even the days of the annual meeting he did not neglect the stations, although staying a shorter time than usual at each. On such days he always put on a new white hat to meet the Lord Mayor, who, by virtue of his office (being President of the London Vaccine Institution), is chairman on the occasion." 125.

Dr. Walker, however, could not last forever. The organic machine was beginning to shew that it could not much longer contain the immortal soul. In the month of February, 1830, he was suddenly awoke to a consciousness that he had passed the usual range of human existence (70) and instantly came to the resolution to prepare for death—a preparation, which no doubt, hastened that event. When he determined on any thing, he could not rest till it was accomplished. He wanted shelves constructed in his cabinet for the arrangement of its multifarious contents. He went for the carpenter himself, and even carried home the wood on his shoulders. By this effort he was exhausted—complained of a pain in his side—and a previous cough was increased. He was a sceptic as to all remedies in sickness, and would take no medicine. He got worse; but still went his daily rounds. In the month of June (21st) he went his last round in the cabriolet. He then took to his bed, would take no medicine, and died on the 23d of the same month. In a report of the London Vaccine Institution, ample justice is done to the merits, the zeal, and the unwearied exertions of this singular and eccentric character who, "for upwards of a quarter of a century, never omitted one lawful day going his rounds to the numerous stations of the institution."

The mass of papers, containing observations, reflections, and anecdotes picked up on his travels, have furnished materials for several chapters in Dr. Epps' Biography, all of which will be read with much curiosity. Thus the sixth chapter exhibits Dr. Walker in Paris during the revolution, and discloses many curious scenes of that stormy event. He there became, intimate with Tom Paine, Napper Tandy, Thomas Muir, and other distinguished characters that figured on the theatre of the young republic. Of Tom Paine he seems to have entertained a most exalted opinion. The following passage will afford a good specimen of the deliberate JUSTICE which we are to expect under republican institutions, should they again become the order of the day—which is more than probable.

"Among Dr. Walker's notes is a reference to the proceedings of the council of FIVE HUNDRED, in regard to newspaper editors, proceedings showing that though the members were republicans in theory, they were not so in practice. The council met in the Odeon

Theatre. The report of the committee appointed to investigate the character of periodicals was received, and, on the same, numerous individuals, including proprietors, printers, publishers, editors, &c., of opposition papers, were sentenced to deportation to the unhealthy climate of Cayenne, amid the acclamations of the attendants. With a list of nearly thirty different journals, which the committee had reported as anti-republicans, the president called out the titles, one by one, with the charge, 'Ceux qui veulent qu'ils soient deportées qu'on s'elevent,' when the members generally made a little move, as if going to stand, and the president pronounced—"Ils sont deportées." At length the rapidity of such procedure was not in conformity with the organic powers of the president, who called out, on giving a title, 'S'il n'y a point de reclamation ils sont deportées.' All sitting still, the president added—"Ils sont deportées," and the secretaries recorded their sentence of unlimited banishment.

Sometimes a member rose in his place. The council occupied the pit. The member rising thus addressed the president:—"Citoyen, president, je demande la parole." 'Vous l'avez, citoyen,' replied the high officer. The member then stated that he knew well the proprietor and conductor of the journal in question. 'C'est un brave homme, un excellent citoyen, un vrai republicain.' The member further represented that it must have been from some mistake that an anti-republican article had appeared in its pages; that the editor was, perhaps, ill, or out of town, and concluded with demanding that the paper be erased from the list of those prescribed. The member having finished, the president added, 'Ceux qui veulent que les noms des proprietaires, conducteurs, &c. du papier soient erasees qu'on s'elevent.' 'Ils sont erasees.' The pleasing words were pronounced, and thus many individuals at once escaped transportation. This example given, other members took courage, rose in their seats, and succeeded in saving their friends from banishment. However, mercy was not a characteristic of many of the most declamatorily influential of the council. Agalot, Jean de Brie, and others, rushed towards the tribune and prevented the further extension of mercy. They represented that the aristocratic journalists are the greatest of all enemies to the republic; that through these the royalists were emboldened to rebel; that had not they (the council) struck the decisive blow, and seized the conspirators in their midnight machinations at the manege of the Thuilleries, and even at the Luxembourg, breaking up at once the secret confederacy, in twenty-four hours more the republic would have ceased, and we all should have been hanged. This appeal to the feelings occasioned the bursting forth of loud shouts 'Vive la Republique,' and the sentences of deportation were hurried on as before." 139.

The political opinions of the Doctor himself were unequivocally democratic; but his religious tenets, or at least the tenets of Quakerism, which he outwardly and perhaps inwardly embraced, induced him to take no active part in politics of any kind.

It is in the 8th and three succeeding chapters, however, that we are more particularly made acquainted with the personal character of Dr. Walker. These chapters will afford considerable amusement as well as instruction to the readers of the volume. We can only glean a few particulars from these chapters.

The attachment of the Doctor to his wife and his native home are very forcibly and feelingly illustrated by various traits and memoranda which are here brought to light. The simple Quaker appears to have paid little or no attention to his own pecuniary concerns—nor even those of the institution, whose prosperity he had so much at heart. Although he was often requested to vaccinate the children of the affluent, he would seldom

go to them, and rarely received any remuneration for services performed. The only thing in which he was extravagant was PRINTING. "Every thing he wrote must be printed; and if not relating directly to the Institution, he printed the same at his own expense." It need hardly be remarked that his publications were a losing concern, as the following letter to his brother-in-law, Mr. Bowman will testify.

"Dear John,—That I should hardly ever have spoken to thee on my financial affairs, as growing out of the Vaccine Institutions, may have excited thy surprise. While from time to time thou hast helped my poor frugal, striving Annie to meet payments, which the poor managers' advances 'always on account,' did not enable me to do, thou must wonder on things not coming round from year to year, so as to give me something like a proper provision.

"I am sorry to send to thee for liquidation the enclosed demand of 23*l.* 14*s.* 6*d.*, for all my late literary labour. Purchases leave me at this moment without the means of paying so many shillings, I may truly say pence, as the amount of pounds in the bill." 209.

His Quaker maxim of keeping his hat on at table, and in all companies, subjected him to many inconveniences. On board the *FOURDROYANT* line-of-battle-ship, in the Mediterranean, he was taunted unfeelingly by the officers of the mess, and still more so by the concerted chaplain of the ship, so that he withdrew from the ward-room table, and was nearly starved by so doing!

"The opposition became at last so general, from the intimate connection subsisting between the officers of a mess, that his own friends were influenced, and requested him to give up his 'singularities.' The lordly priest, the conceited chaplain of the ship, who acted as president at the table, said to Dr. Walker, 'you insult me in the chair.' The captain expressed his wish to interfere. Dr. Walker requested him not to do so, as he would leave the mess, and look out for a passage in another ship. Not having any regular supply of provisions, not being willing to receive from the mess, and not being able to buy any food, he suffered much in the performance of what he considered duty from the pains of hunger, so much so, that 'a hard and old bit of biscuit, a raw chesnut, or any thing falling in my way, that,' he adds, 'I knew would furnish chyle to the system, I have devoured with avidity.' This state continued upwards of a week, and he found that 'the last seven days had given him more room in his clothes than he remembered to have felt since he left England.' Happily there was one Hibernian, a warm-hearted descendant of his ancestor the Duke, who lost his life in crossing the Boyne water, who said he could not allow the Doctor to starve in his ship, and begged him to use his cabin and whatever it contained. His larder, however, was not that of an epicure; a dried tongue, a few anchovies freshened with honey (comb and all) afforded the subject of this memoir, as he himself wittily observes, 'a repast from both the animal and vegetable departments of creation.' At length the valiant transport received the conscientious Quaker, who, having taken a hearty dinner on the day of his departure, found that his stomach, from the delicacy induced by semi-starvation, would not retain its contents, a physiological fact of some practical importance. These events happened in Marmorice Bay." 224.

Dr. Epps conceives that this course of action, on the part of the Doctor, was not the result of "obstinate bravoism, but conscientious integrity." We agree with the biographer, as far as the individual is concerned. But we cannot help considering this obstinate adherence to a ceremony so general in the world, and so purely void of even subserviency, much more of guilt, was a very foolish weakness or prejudice on the part of a man who chose to

mix with the world. It was a keen and just remark of Plato, who told Diogenes, engaged in ridiculing his dress, that "there was as much pride in the rags of Diogenes as in the dress of Plato." The Doctor was outrageous, because the Duke of York ordered the soldiers to present arms on the passing of the Host, in Catholic countries. There is not much danger of this ceremony being very long in use!

It appears that Dr. Walker was not less sceptical in religion than in physic. He disbelieved in the Divinity of Christ—"he did not believe the Holy Scriptures to be divine." He disregarded all revelation, "believing that the light that lighteth every man that cometh into the world is quite sufficient for every moral and spiritual purpose." Such being the Doctor's creed, or rather scepticism, we do not much wonder that the Quakers refused him admittance within their pale:—we wonder, too, what could induce him to seek admittance into their society! The following is Dr. Epps' remark on this important subject.

"And here the writer must state that, in recollecting that the subject of this memoir was a sceptic, and knowing the fact that many good men of thinking minds are in the same unhappy condition, he cannot withhold the fact, of which he is certain, that established systems of church government, necessarily corrupt, and mimicry imitations of these systems by those called Dissenters, more or less impure, are the cause of a great part of the cold infidelity of modern times. Benevolent and thinking beings see nothing of the religion of Christ in men making a trade of religion. In the hierarchy of episcopalianism or the kirk of Scotlandism, they see nothing of the simplicity of Paul and his friends; and in the little popes of dissenting congregations they behold the exhibitions, although on a miniature scale, of a certain individual who lives on the banks of the Tiber.

We shall conclude with one more extract from Dr. Epps, since it conveys a spirited characteristic outline of the moral and physical man whose life has been portrayed.

"In stature, Dr. Walker was about five feet seven inches and a half. His features were long and prominent, especially the nose and the chin. His eyes were large; also his eyebrows. His forehead high; his hair dark brown, which he combed back straight like the patriarchs of old. His bones were large, and were prominently marked from the spare habit of his body. He wore a white beaver broad-brimmed hat; large broad-tail coat, the pockets full of papers, a portfolio under his arm.

He was very moderate in his meals; enjoyed his tea much, and often referred to the love of taking this delightful beverage. For the last fifteen years of his life he never took any malt or spirituous liquors, being convinced, from the rapidity of the recovery of the Mussulmans whom he attended at Alexandria, under their wounds, that the constitution of individuals taking water is in the most healthy condition. He found that he was less liable to take cold from exposure to rain and other commonly considered causes of cold, than when taking malt liquor. He partook of animal, as well as vegetable food. The day he died, he asked for the former, in the request, 'Annie, bring me some *animal fibre*.'

He often sat up very late at night writing, being a contributor to a great variety of periodicals, which, it is hoped, will repay the debt of gratitude in the most efficient way: for Dr. Walker never was a paid scribe.

Such was this extraordinary man. He knew human nature well. He did not seem to take any notice, but was always noticing. He scorned being influenced by trifles. The

laugh of ignorance he did not regard; and the finger of contempt he did not observe. He felt pleasure in his own ways; and no displeasure of others could alter him: 'John Walker could,' as his friend Mr. Cordell said in a speech to his memory at the City of London Tavern, at the Anniversary meeting for 1831, 'never be forced; but could always be led by a silken cord.' There was in him a stream of benevolence that would have fertilized wherever it flowed, had not its course been too rapid and impetuous. He was the apostle of vaccination. He went out, in truth, without scrip or purse. His life was a continual exertion for the happiness of the human race; and, though he felt a little pride in these exertions, let us forget this in the benefits which, from his labours, society now experiences." 292.

Dr. Epps has performed his task well—and sincerely do we hope that the public will aid the author in his benevolent exertions for the helpless and surviving widow, by purchasing extensively the work which we have just closed.

IV.

AN ESSAY ON THE INFLUENCE OF TEMPERAMENT IN MODIFYING
DYSPEPSIA OR INDIGESTION. By *Thomas Mayo, M. D. &c.*
Octavo, pp. 144. London, 1831.

WE have here an addition to the numerous works on Indigestion with which the public has been inundated for the last ten or fifteen years. But it emanates from a respectable source, and is not a mere advertisement to catch practice, and thus gain two objects at once—money and experience—like a well-known surgeon, who announced a work on a particular operation which he had never performed but which he hoped to have an opportunity of performing, through the instrumentality of said announcement.

Dr. Mayo, like most authors, deems it necessary to offer some reason for presenting his work to the world. The object of the Essay may be gathered from the following introductory passage.

"A patient labouring under indigestion applies to his medical adviser, or perhaps takes up one of the many valuable treatises by which the public has been familiarized with this interesting subject. He receives from his doctor, or he finds in his book, a series of rules, which seem to apply to many symptoms of his case. But he finds himself unrelieved, though he has employed remedies, directed against symptoms which have a real existence in himself, and which, he knows, his similarly disordered friend, Mr. A. or Mr. B., has found greatly beneficial. Or, reading many treatises and consulting many practitioners, he finds each of them assigning to his symptoms a different treatment.

Again, a young medical practitioner applies for instruction to some esteemed work on indigestion. He soon becomes aware, that it contains much valuable matter. But when he begins to practise from it, he finds the application of its rules involve him in numberless errors; and he begins to suspect that the work is valuable *only* as it sets him thinking for himself, or perhaps that it has no value at all. This surmise is greatly strengthened by his observing, that in many treatises, each evidently relating to the same class of symptoms, very different views of practice are entertained.

It is my object, as far as I can, to explain, and to remove the above difficulties.—*Introd. 2.*

"*As far as I can*," was a most wise salvo in the foregoing passage—for, to remove the difficulties above stated, and reconcile the jarring practices of doctors or the theories of writers, is a task far beyond the powers of Dr. Mayo, or any other-man.

After some observations, not very new, on the difference between medicine and the exact sciences, our author goes on to observe that, out of the mass of accumulated knowledge there do emerge some few well-ascertained principles which command general assent; while the great mass of materials lie unarranged and comparatively useless, the consequence of which is that many facts, after being ascertained and admitted, fade, and are lost to society. After some gentle censure on the merely practical man and the mere theorist, the author justly observes that, "one great object of every work should be to make the reader think for himself." We recommend the following passage to the perusal of those (and they form the majority of the profession) who despise study, and lean entirely on their own observations.

"The following principles of study are inculcated in the lectures of the late Dr. Armstrong, a practitioner, whose activity of mind fitted him in many respects to advance the science, and whose early death is a just subject of regret. I refer to them as accurately reported in the *Lancet*. After remarking contemptuously on Dr. Cullen, as being, what in the philosophical humility of his mind he was content to be 'a man who introduced nothing original;' as if indeed to systematize the labours of others could involve no claim to intellectual merit, he states his own notions as to the extent and kind of information which a teacher should give, and which a medical student must be contented to receive. 'I wish you to understand,' says the Doctor, 'that these lectures will be neither elaborate nor learned in quotations, but will simply contain the results of my own observation and experience, laboriously conducted through a period of upwards of twenty years at the bed-side of sick individuals.'*

Now this is just the kind and extent of error which a little vanity, combined with a very dangerous misconception of the value of previously accumulated knowledge, is calculated to produce. It would almost appear, that there was a real advantage in knowledge of twenty years' standing over knowledge combining the results of these twenty years, with the collective experience of ages. But let the lecturer ask himself, how his modicum of practical information would ever have been obtained, but for these previously collected stores, which he affects to condemn, and which would probably assume a much more digested and valuable form, but for the mischievous sarcasms of similar reasoners. I know no other way to obviate this wayward tendency than that of giving just and reasonable views of the value of sound nosology as contrasted with precipitate theorizing. Had the ingenious writer just mentioned been aware how necessary it is for the practical utility of medical views, that they should rest on a broad basis of general principles obtained by comprehensive enquiry, he would, at the risk of being sometimes 'elaborate,' and even of indulging in quotations, have ventured upon a more extensive field than that supplied by his twenty years of personal experience. If Dr. Armstrong *himself* proceeded upon these principles through the whole of his own practice for those twenty years, what must we think of the perils of his patients during the first ten?" 10.

* * *Lancet*, vols. v. vi. p. 361."

After some strictures on the danger of drawing descriptions of diseases from single cases, Dr. Mayo says that, "it would not be difficult to show that this oversight has vitiated the entire description of fever given by Dr. Armstrong." We knew Dr. Armstrong better than Dr. Mayo could possibly have done—and we are disposed to think that the late talented lecturer drew pictures of disease from a fertile imagination, or an exuberantly reproductive memory more frequently than from individual cases.

After these introductory observations, the author comes to the subject of the Essay. The first chapter is on the definition of indigestion, and its division relatively to *temperament*. He adopts, with the omission of a single word (primary) Dr. Paris's definition, and informs us that, with no disposition to depreciate the labours of other inquiries, he shall take up the subject of indigestion where they have left it. He thankfully refers to them for its general symptoms, while he endeavours to "show how the disease thus characterized may vary in different classes of men, according to certain combinations of qualities, physical, moral, and intellectual, called *TEMPERAMENTS*, by which these classes are distinguished." He adopts the ancient divisions, with the addition of the *nervous* temperament, and he then proceeds to consider indigestion in reference to bile, blood, phlegm, and nerve.

CHAP. II—DESCRIPTION OF TEMPERAMENTS.

1. *Bilious Temperament*. This expression assumes the "tendency to a copious secretion of bile, in the person of whom it is predicated—and this is compatible with a good state of health. The morbid form of the temperament implies an obstructed, or vitiated, or excessive secretion."

"The bodily confirmation of the bilious, is usually represented as rigid and spare, rather than full, or largely developed.

The effect of bilious temperament upon complexion, is certainly to render it less clear, less brilliant, more sallow, than the same complexion is, whether dark or fair, under the sanguine temperament. In this sense alone we are authorized to describe it as influencing colour. The texture of the skin seems, on the other hand, very materially influenced by temperament. In the bilious, compared with the sanguine, it is harsh and often arid. The sanguine temperament, as will be observed, gives a remarkable smoothness and elasticity, as well as brilliancy to the skin.

'Cependant sans cette maudite bile, on ne gagne pas de grandes batailles,' said Buonaparte, according to M. Ségur, after complaining of its inconvenient effects in deranging his temper. Now, fanciful as this remark, and a great deal more of the same kind, may appear, I am not prepared to assert, that the universal impression as to the bilious predisposition possessing peculiar qualities of a moral and intellectual kind, is unfounded.

Among its most admitted traits, I should enumerate a gloomy but active imagination, a jealous, distrustful, and unsatisfied disposition, and an anxiously reflective cast of thought.

The dissatisfied nature of persons thus predisposed, would account for the stirring, restless, and ambitious course of action with which they are often charged. Such *would be* the prominent features of a life, in which it is supposed, that the *present* and *possessed* enjoyments become, *as such*, comparatively valueless.

One of the most distinctive features in this moral character, is the combination, which it often displays, of extreme and restless anxiety to be engaged in some employment, with a dull lethargic state of intellect, which entirely precludes useful exertion.

We may, indeed, generally observe, that the efforts of the bilious fall short of their aspirations.

But the works of MM. Richerand and Cabanis may be consulted, for a very diffuse and fanciful account of the temperament which I have here endeavoured to sketch. It has been my object to avoid conjectural remarks, and to limit myself to what appears extensively admitted or implied." 24.

II.—NERVOUS TEMPERAMENT.

Our author acknowledges the difficulty of defining or describing this temperament. The principal characteristics of this, he thinks, may thus be stated.

"First, That it is highly susceptible of impressions. Secondly, That impressions once made are easily re-excited. Thirdly, That when it is in the state of morbid action proper to it, the solids of the body exhibit earlier and more marked phenomena than the fluids." 24.

Dr. Mayo illustrates the nervous temperament in the following manner. A person of vigorous intellect, and of a firm intrepid spirit, may be so organized that the loss of a trifling quantity of blood by venesection, shall produce syncope, even in a high state of health. Yet the same person (and a gallant officer is alluded to) may lose blood copiously by wounds in battle, without any such effect being produced.

"Now, in this case, two points may very fairly be assumed. First, That it is not the quantity of blood taken by the lancet, but some influence produced on the nervous system of the patient, that occasions the loss of power. Secondly, That the part of his nervous system, which first receives this impression, can scarcely be considered as having any reference to his intellectual or moral character. In this case, therefore, we must conclude, that the impression conveyed by the nerves is primarily of a physical kind; or, in other words, that it operates on a part of his system which does not concern him either as a moral or an intellectual agent. Whatever suspension of the powers of the mind has ensued, is secondary. This first kind of nervousness I shall, therefore, call physical or bodily." 27.

The Doctor is a subtle casuist; and the above is a fair specimen of refined explanation. For our own parts, we would be tempted to solve the question in a much more concise, though perhaps not so physiological a manner. In battle, a man is in a state of excitement which will bear a loss of blood with little inconvenience, which, in a state of tranquility, would cause faintness—in the same way that a man labouring under inflammatory fever would bear a depletion that would kill him almost, in a state of health. So, in great pain, opium may be taken to a far greater extent, without stupefaction, &c. than when no pain exists. Surely there need not be such an expenditure of words and ingenuity in stating these obvious facts founded on universal observation. We agree with our able author in the following remarks.

"Totally distinct from this is the susceptibility of nervous affection from moral impressions; a species of nervousness which I shall call moral. It is remarkably shewn in the

bodily symptoms occasioned by timidity. But in each individual it must vary in form, according to the class of emotions, to which he is most predisposed.

Both of the foregoing species may be illustrated by the phenomena of hysteria. This affection may arise out of a series of moral feelings and impressions, influencing the nerves of the uterine system; which, once excited, occasion the various spasmodic symptoms distinguished by that name. Or it may arise from an irritation commencing in the womb, and not propagated from any prior emotion of the mind. In the first case, hysteria has a moral, in the second it has a physical origin. And how different will its treatment be in these two cases, if justly distinguished and appreciated!" 28.

It has been seen already, and will be still more evident in the sequel, that Dr. Mayo deprecates the idea or the practice of drawing general descriptions from individual cases. Yet one of the "three important heads" under which he discusses "nervous susceptibility" is founded on a single case.

"Thirdly, There are persons, in whom some operations of the intellect instantly produce a disturbance in the nervous system, which greatly interferes with the success of these operations. I have heard the sufferer describe this state of his nerves, as occasioning a cloud or mist suddenly to diffuse itself through his mind. In this way, again, nervous defects in articulation may be explained. A gentleman of very distinguished talent, singularly free from the two forms of nervousness above described, is well known by his friends to labour under the third. The occasions on which this defect has been observed in him, are usually those, in which the time for the performance of an intellectual task happens to be limited, the spectators or witnesses numerous, the object important. It is not that he feels more apprehensive of competition, or more anxious about the event, than other men similarly situated, but that his intellectual powers require to be humoured in every way, and are perplexed by circumstances, to which others of a more hardy, though less powerful intellect, would be impassive. Now this state of the understanding is liable, unless the above distinction be appreciated, to be treated as obstinacy, or as stupidity, or as deceit; because it wants those external phenomena of nervousness, which are palpable and conspicuous in the physical, and yet more so in the moral form.

The gentleman whose case I have adduced possesses the utmost steadiness of nerve, both physically and morally. His principles and his bodily constitution are alike sturdy and vigorous. It is only when his intellect has to energize, that the phenomena of nervous irritation are observable, and they are probably heightened by his complete consciousness of the powers which he possesses, and his occasional inability to exert them.

This, therefore, I shall call intellectual nervousness." 29.

III.—SANGUINE TEMPERAMENT.

This temperament, which is discussed in little more than a page of very open type, is characterized by our author, as more nearly allied, in its ordinary form, to healthy, than to morbid actions. "It implies," says he, "a free and energetic circulation, a well-developed but firm muscular system, and a powerful conformation of the whole person. The complexion is usually florid; but the principal characteristic of the *temperament*, in this point, is brilliancy. The moral and intellectual properties of the sanguine are assumed to be such as correspond to a vigorous structure. These are vivacity, energy, and confidence."

IV.—PHLEGMATIC OR SEROUS TEMPERAMENT.

We shall give the Section in the author's own words, lest it should be thought that we detracted from its merits by abbreviation in our own language.

"The main characteristic of this constitution is a deficiency of energy. It admits of a division into two heads: one embracing those cases in which the want of energy appears connected with a want of excitability; the other comprising those in which it is connected with a want of power. The first of these divisions is well described by the popular term relaxed; the other is the basis of the asthenic or feeble constitution, and, as such, is productive of the long and melancholy class of scrofulous affections. In both of these forms of the serous temperament the natural complexion is most frequently pallid. In both there is a remarkable absence of buoyancy and resiliency of habit. But the skin of the relaxed person, though pallid and bloodless, differs greatly from the unwholesome delicacy of the asthenic, and his muscular system is often even largely developed; while, on the other hand, in the asthenic form, it usually happens, that the bodily structure, if not actually small, is rather fat than muscular. Persons of the relaxed habit are colourless; while the complexion of the asthenic is often of a delicate redness. The pulses of both, except where fever occurs in the asthenic, are languid: but the languor of the relaxed seems connected with sluggishness, that of the asthenic with feebleness. In the relaxed person there may indeed be power; but it is difficult to communicate an impulse which may bring that power into action. In the asthenic, the impulse communicated is felt indeed; but it elicits no reaction, it merely exhausts.

In regard to moral and intellectual characteristics, as well as those which are purely physical, the serous temperament is well distinguished into the above varieties. The habitual sluggishness of simple relaxation, and, on the other hand, the feeble virtues and vices, and the languid conceptions of the asthenic class, are easily recognized. The character of Dr. Johnson was essentially of the first kind, which, it may be remembered, is compatible with power. Such were his strong but cumbrous exertions, slowly excited by the stimulus of necessity. Such, indeed, was the lazy application of extreme labour, which produced his dictionary. *He* well describes those painful exertions, under which the nobleman to whom he addressed himself, failed to assist him, until assistance was no longer wanted by him. Without some reference indeed to his languid temperament, it is difficult to account for the indifference with which a man so competent, and so disposed to investigate, could leave questions of extreme philological importance to pass unheeded, or to take their chance in the course of his execution of this extraordinary work.*

For instances of the asthenic class we must not explore the annals of intellectual or moral greatness. In its simple form, this kind of character passes through life unnoticed and unattractive. When complicated with the nervous temperament, it produces a kind of sensitive but powerless enthusiasm, which is in small repute as a quality of *men*,† but is often painfully beautiful in the other sex; painfully, I say, because, in the latter case, we can give it our sympathy. For the want of defensive power which it implies, and which

* "On this point Dr. Johnson is repeatedly censured by Horne Tooke.—The above remarks must be understood in reference to those operations of Dr. Johnson, in which even he was compelled to labour. The greater part of his works must have been *child's play* to his comprehensive understanding and richly furnished memory.

† "Such is the character of Wilfred in Rokeby."

we are always disposed to treat contemptuously, when observed in man, is no blemish in the character of woman." 35.

The third chapter of the work embraces "a general sketch of indigestion," in which Dr. M. reminds the reader that "originality of matter is not his main object;" he therefore lays claim only to the utility of *applying* the labours of others. This chapter, in fact, is rather a critique on the works of Drs. Paris, Philip, and Johnson, than a delineation of the disease under consideration. It will, perhaps, on that very account, be more attractive to readers in general, who greedily devour opinions as to the merits of writers with whose productions they are familiar. The author shall speak freely for himself, even when we ourselves are somewhat depreciated.

"There is a remarkable diversity in the methods in which medical writers have respectively undertaken the history of indigestion. In the three able writers, whose works justly enjoy the highest present reputation on this subject, Dr. Paris, Dr. Wilson Philip, and Dr. Johnson, I find but little reference to temperament or constitution, as any ground of pathological distinctions. Dr. Wilson Philip furnishes a very masterly description of the disease. He has looked at his subject analytically, and he places his reader in full possession of *his* view of it. But this view is, in fact, just such a one as might be expected to occur to a clear medical eye, after a careful abstraction of those differences which a consideration of temperament would suggest. It will, I trust, appear in another part of this Essay, how necessary it is that such distinctions should be *entertained* and *admitted*, with a view to the complete developement of Dr. Philip's subject. It is indeed curious, that he should not have applied such distinctions to indigestion, considering the avowed object of his treatise, 'to give arrangement to the affections termed nervous and bilious, and to ascertain the nature of the disease on which they depend.'

Without establishing any such division of the subject, Dr. Johnson's admirable work furnishes a much larger stock of materials for it, than that of Dr. Philip. The principal difference between the views of these two writers is, that Dr. Philip places before us a definite complaint,—Dr. Johnson describes a morbid habit. The first delineates an attack of dyspepsia, and follows this to its termination; the second draws from the life many characteristic features of a dyspeptic person.

Now it will be expedient to consider the ordinary form of the dyspeptic disease, as given by Philip, and the ordinary features of the dyspeptic patient, as portrayed by Dr. Johnson. This will form a useful basis for the more immediate subject of this Essay, the inquiry into those influences, by which temperament modifies the common phenomena of indigestion." 38.

A condensed sketch of Dr. Philip's views are then introduced without a single comment, after which Dr. Johnson comes in for some criticism as well as quotation. Dr. Paris has just right to complain, as not being noticed, either favourably or unfavourably, except as furnishing the best *nosological* character of dyspepsia.

"The indications of debility and irritability of the stomach and bowels, which Dr. Johnson considers the proximate cause of indigestion, are placed before us more loosely indeed, and with less attempt at system, but in a far more graphic way than by Dr. Philip. Dr. Johnson, indeed, enjoys the advantage, on which he frequently insists, of writing from his own feelings: an advantage, I beg leave to say, of a very questionable nature. In analysing disease, the physician has to deal with his own mind upon the same principles which he applies to the judgments formed by his patients and their sympathizing friends. He has *in them* to correct a tendency in constant operation to give unequal relative weight

to the several features of the case, and he is sure to find that tendency active in regard to those points of disease with which their own personal experience may have most familiarized them. Now, the same difficulty besets *him* in keeping his own views steady and clear, when he has been himself a severe sufferer from any given illness, in regard to *that* illness; and his readers should always be on their guard, lest he should deal with his stores of knowledge with no greater discernment than a father may be observed to exhibit in regard to his children, when he has seen a great deal of some, and very little of others.

In common with most other writers on dyspepsia, Dr. Johnson directs his attention and his remarks chiefly to that form of the disease most frequent in the bilious habit. Though this, however, is his leading subject, he comprehends in many of his remarks, and, in his enumeration of the causes of morbid sensibility, a far wider field; * so that his work approaches more nearly than that of Dr. Philip to a view of indigestion classified according to the diversities of temperament.

Though no distinction founded expressly on such a theory is laid down by Dr. Johnson, he supplies some materials for it, so far as nervous indigestion may be contrasted with that of the bilious constitution. There is indeed much valuable practice suggested in relation to the nervous phenomena of the disease. Thus he animadverts on the system of Mr. Abernethy, where it well deserves animadversion, namely, as aiming at the recovery of health through a purgative and mercurial treatment alone. He similarly reprehends the abuse of Dr. Hamilton's purgative system; an abuse which may be entirely referred to the heedlessness of his followers, and not to any doctrines laid down in his invaluable work." 47.

We are inclined to think that Dr. Mayo has misapprehended Dr. Johnson, who, we may venture to assure him, does not claim any *advantage* from the circumstance of having suffered from dyspepsy. Whoever has felt the miseries of that disease, will never recal them to memory without horror—and will never boast of them as advantages. But Dr. Mayo seems to consider that a physician who has laboured under any particular disease, as for example, dyspepsia, is, in a measure, disqualified for writing on or treating the complaint—being in the predicament of a father evincing want of discernment to his own offspring. If Dr. Johnson has had but one patient all his life, and that one himself, there is little doubt but that his descriptions are merely auto-pictorial, and consequently are of no value beyond the individual from whom they are taken. But if from personal sufferings, a man's attention be strongly directed to a subject, and that man has ample means of studying the said subject in others as well as in himself, we humbly conceive that the personal affliction is no disqualification. Was Dr. Bree's Treatise on Asthma (the best work in the English language on the subject) the worse because that able physician was a sufferer from the complaint?

Dr. Mayo proceeds to copy from Dr. Johnson's work four pages respecting the treatment of dyspepsy, concluding thus;—

"But Dr. Johnson's view of this subject would have been more comprehensive than it is, had it been constructed with a direct reference to a theory of temperaments. Thus,

* "See particularly the valuable Remarks on the Phenomena of Repletion, and on those of Dyspepsia and Indigestion, from p. 18 to 43.

if he had considered the large class in whose constitutions atony and relaxation predominate, and the liability of such persons, in an extreme degree, to the symptoms of dyspepsia, he surely would not have made this complaint identical with 'morbid sensibility of the stomach and bowels.'

In these persons it is morbid *insensibility* that constitutes the main feature of their ordinary indigestion. Such indeed is the usual state of the stomach induced by long continued gluttony; a vice unusual in highly sensitive constitutions. The dyspepsia of the glutton has no necessary connexion with any process of nervous irritation: it has duly ensued upon a long continued course of excessive stimulation, and consists in entire atony and languor." 51.

The foregoing passage convinces us that Dr. Mayo, however closely he may have studied *temperament*, has yet to learn the phenomena of dyspepsia—at least as far as regards the disease in gluttons and drunkards. Let any one of our readers, who has a patient of this description, pay attention for a single day to the symptoms, and if he do not see "*nervous irritation*," and nervous irritability as a prominent feature, we will acknowledge ourselves to be superficial observers. Debility and irritability have been recognized as parent and child, since the earliest records of medicine. Let Dr. Mayo exhibit some food of difficult digestion to one of his patients whose stomachs are atonic and languid from "excessive stimulation," and see the pain and nervous commotion which will be excited in an organ which he maintains is in a state of "*morbid insensibility*." What would create no sensation in a empty stomach, will here induce vomiting, or pain, or spasms, or a host of indescribable and horrible feelings in various parts of the body—yet this stomach, forsooth, is in a state of "*morbid insensibility*!"

Dr. Mayo next undertakes the defence of his friend Dr. Philip against the strictures of Dr. Johnson; and with the defence we find not the slightest fault. Valeat quantum valere debet.

In the 4th Chapter Dr. M. takes up the subject of "indigestion of the bilious temperament." This is the form of dyspepsy, Dr. M. observes, which is most commonly described by authors, because there is no other organ, he thinks, so influential in the production of the disease as the liver. The Doctor makes some sensible remarks on the connexion between dyspeptic ailments and mental emotions, but they are not particularly new, nor quite so well expressed as to be intelligible to all readers. This is a defect which pervades the work throughout. There is a very considerable obscurity in the language, though doubtless the ideas were clear enough in the author's own mind. The Doctor takes Dr. Philip's account of the disease and its treatment, making a few scanty remarks in the course of his quotations. Speaking of hypochondriasis, Dr. M. says he cannot agree with those who maintain that "*indigestion is by no means essential to hypochondriasis*." The Doctor then goes into a long disquisition to shew that, although there may be no symptom of indigestion present, yet we are not to rely on such evidence, as the patient is apt to deceive us as himself. All we shall say to this is—*de non apparentibus et non existentibus eadem est ratio*. We have seen many instances of hypochondriasis where there was not the slightest proof of indigestion, and where, on dissection, there was found organic diseases in the head or chest—none below the diaphragm.

"As melancholia* unfolds itself, the difference of treatment which given symptoms require, in relation to the accompanying temperament, becomes more important. The slow pulse, the extreme sense of lassitude, the moist relaxed skin, the entire absence of feverish excitation then observed in the bilious dyspeptic, symptoms which, it is to be observed, they possess in common with the phlegmatic, would incline us to the same active use of tonics and stomachics, as is really suitable to these symptoms, when met with in the latter temperament; and supposing we combine this practice with the occasional use of mild mercurials (a combination highly expedient under serous or phlegmatic indigestion) we shall find the bilious dyspeptic make accelerated progress towards the most dangerous stage of his disorder. For the mild mercurials excite, without giving it a due vent, the secretion of bile;—tonics lock up the enemy who requires to be expelled. The motions will become livid or dark; icteric symptoms will probably supervene; a suffusion will take place over the mind, as dark as the hue given to the face; and the mental affection, which overhangs the confirmed state of bilious dyspepsia, will become decided in character and very difficult of cure.

There is a change of symptoms often observable during the developement of melancholia under bilious indigestion, which is very apt to give apparent reason for the use of strengthening and stimulating measures. In the case which I am supposing aperients *seem* rather prejudicial than salutary, from the extreme uneasiness which they produce: 'Omnibus iere melancholicis commune est,' says Lorry, 'ut statim ab alvo deposita in pejus ruere sibi videantur.' Now the physician has to defend himself against the influence of this *appearance*; it does not, of itself, justify a change to the use of stimulants, though it may compel him to employ less irritating purgatives.

Some very able remarks are to be found in Dr. Johnson's work, in regard to change of scene and place, as it concerns the dyspeptic patient. And these may be applied, without much reserve, to the nervous and to the serous dyspepsia. But in regard to the bilious dyspeptic, when the worst (the mental) class of symptoms are impending, the most extreme caution is required in applying these remarks. Before the disorder has taken this direction, or again, when the melancholic symptoms are on the wane, at either end, as it were, of the disorder, travelling is very beneficial; but not in the intervening state. The serous, or nervous indigestion is better at almost any period for change of place, *as such*; for in these two latter kinds of disorder the stimulus thus applied often works a cure more promptly and effectually than any medical or dietetic expedient. But it is not thus with the *bilious dyspeptic*; 'cælum non animum mutat;' and in the meanwhile he postpones, or half performs those measures by which that part of his cure which depends upon medicine must be effected.

The 'bilious are usually incontinent:' and while travelling they are apt to avail themselves of the immediate benefit derived to their appetite from locomotion, and to take, with apparent impunity, articles of food, which they would otherwise be *unable*, and are still *unfit* to cope with.

The use of exercise is a most important consideration to the bilious temperament. In nervous indigestion it is often greatly overdone. Here it is seldom mischievous, except when applied at an unfit time in relation to meals; a point in determining which the idiosyncrasy of the patient must be consulted." 70.

We confess that we hardly comprehend Dr. Mayo's reasoning respecting the danger of travelling exercise in the *middle* of "bilious dyspepsy," while it is granted that the said exercise is advantageous "at *either end*, as

* "I know no other useful distinction between hypochondriasis and melancholia, than that of degree."

it were, of the disorder." There is no doubt that, in many cases of confirmed hypochondriasis, which is, indeed, but another name for insanity, "no earthly amusement, (as Dr. Johnson has acknowledged,) no change of scene, no mental impressions or excitement, no exercise of the body, can cheer the gloom that spreads itself over every object presented to the eye or the imagination! With them, change of place is only variety of woe!"* But, from some little experience and observation, we can assure Dr. Mayo and our readers in general, that travelling exercise, *judiciously conducted*, is free from danger in the beginning, middle, and end of hypochondriasis, as connected with "bilious dyspepsy." To the following observations, no one can object. They have been strongly urged by ourselves, on many occasions.

"In either case temperance, active exercise, and often a frequent repetition of mild aperients, are expedient, where the bilious temperament is strongly marked. Temperance, indeed, the rising from table with a stomach unoppressed, and a head not heated, is of paramount importance. And if the dark mental symptoms of this temperament are impending, such precautions are doubly requisite. For it is one of the afflicting circumstances of melancholia, that it deprives its victim of the moral energy by which alone he can persevere in measures requisite for his cure. In other diseases it is hard to find the appropriate remedy; in this, it is equally hard to apply the remedy when it has been found. And thus it happens, that we often see the unhappy sufferer unnerved in courage and enfeebled in intellect, revolving in a tedious cycle through a long series of medical advisers, without resolution enough to pay to any one of them consistent obedience.

With regard to the treatment of melancholia, viewed as an advanced stage of bilious indigestion, it must, from the outset of that treatment, be remembered, that the state of the patient has by that time become a very debilitated one.

The bilious temperament is not essentially a feeble one, but he, in whom the mental disease has supervened upon dyspepsia, has *become* asthenic. If his powers of *receiving food* are not greatly impaired, his powers of *obtaining nourishment* certainly are. Food, except when taken in the smallest quantities, generally oppresses him from the moment at which he has taken it, until some rapid aperient has freed him from it; and this state has, in many cases, continued long before the mind obtains attention as a seat of disease.

The risk of depletory measures, as tending to convert this secondary affection into an almost incurable state, the *démence* of the French writers, has accordingly become extreme. The lancet has no place here. The use of mercurials requires perseverance indeed, but caution and moderation. I have seen them, when pushed to salivation, change perversion of intellect into hopeless fatuity. This caution is the more required, in regard to our present subject, because melancholia or hypochondriasis, when a primary disease, and not the sequel or advanced stage of dyspepsia, bears on the whole more active depletion, than that acute and noisy form of insanity which belongs to the nervous temperament." 73.

From the fifth chapter on "Indigestion of the Nervous Temperament," we can only afford space for the following extract.

"A gentleman of a highly nervous temperament, placed in a situation of continued mental exertion, and much responsibility, in a West India island, was subjected, for some

* On Indigestion,

bilious symptoms, which were viewed without any reference to the predominant character of his constitution, to a severe mercurial treatment. He, at the same time, suffered from hemorrhoids, occasioning profuse discharges. His strength broken; his circulation so disturbed that apoplexy at one moment, heart affection at another, seemed closely to impend; his skin constantly arid and giving no relief by perspiration to these last symptoms, he returned to this country. It is not my present purpose to detail the subsequent treatment of this case; I wish to call my reader's attention to the fact, that it was found necessary, in the course of his treatment, to allow a far longer suspension of the action of the bowels than accorded with the general principles of practice, or than was comfortable to his own feelings, rather than expose him to the intense nervous excitement and exhaustion, which was occasioned by the process of fecal evacuation, even when conducted in the mildest way. The relief, indeed, from feelings of obstruction, which purgatives were calculated to give him, his bowels being always in a confined state, was completely overborne by the attendant aggravation of *all* his other symptoms, such as flatulence, violent palpitation at the heart, with sense of approaching syncope, and vertiginous feelings in the head. All these sensations ensued upon the action of aperients so mild and so carefully chosen, as to imitate strictly the operations of nature, and yet to unload the bowels completely. Time, a patient endurance on *his part* of symptoms of which it was hazardous to attempt the complete relief, and a persevering abstinence on the *part of his physician* from such measures as might relieve present symptoms, and yet increase exhaustion; and, finally, a very cautious use of bark, ultimately restored him to health. The decisive and complete evidence of his recovery was, according to his own remark, the power of perspiring freely.

Now I do not adduce this case as an instance of dyspepsia, but as remarkably illustrating the effect of the nervous temperament in occasioning the ordinary functions of digestion, those indeed which we are usually compelled to excite and encourage in obviating morbid states of the digestive organs, to become, even in their moderate performance, a source of mischief through exhaustion.

This state, though strongly marked in regard to aperients, was not confined to *their* influence. Bark, as I have observed, promoted his recovery; but the difficulty of introducing bark without startling his nervous system, was extreme. I first decidedly succeeded in effecting this by means of inunction." 78.

We are obliged to pass over two chapters on indigestion as connected with the sanguineous and the phlegmatic temperament, as well as many ingenious observations on several other subjects, because our allotted space is already occupied. Dr. Mayo is evidently a well-educated and clever physician, and in drawing attention to TEMPERAMENT as influencing the phenomena and the treatment of diseases, he deserves the thanks of the profession. If we have differed from him on some points, we have only taken the same liberty which he has done, and which he had a right to do—and we hope in the same spirit of liberality and good feeling which characterizes his volume,

V.

THE PHYSIOLOGY OF THE FÆTUS, LIVER, AND SPLEEN. By *George Calvert Holland*, M. D. Lecturer on Physiology, and Joint Lecturer on the Practice of Physic in the Sheffield Medical Institution. &c. &c. Octavo, pp. 229. London, 1831.

DR. HOLLAND'S quarry has not been low, in aiming at the physiology of the fœtus, liver, and spleen. It would be difficult to select subjects on which more has been said than on these, and on which more evanescent theories have been advanced. The profession look with a certain degree of jealousy on treatises concerning the office of the spleen, and were we booksellers we should hesitate, we should "pause and ponder, and ponder and pause," before we ventured on any *splenetic* speculation. In truth, Dr. Holland's title is not a taking one. A recipe for a new liniment, a specific for a sore leg, would be a much more popular affair than the most recondite discoveries in physiology. The public appear to us to think that physiologists do often play them false, and the multitudes of physiological pretenders of late years has undoubtedly injured the whole fraternity; for when much bad metal is known to be current, honest folks frequently refuse the good. The fact is, that plain persons have been not a little puzzled. One man makes an experiment and deduces from it a certain conclusion; another repeats it and draws precisely the opposite inference. Conflicting statements arise at every turn of the road, till plain practical people get fairly bothered and will listen no more. In former times the error of physiologists appeared to be an excessive disposition to theorize; at the present it seems to consist in an indiscriminate rage for experiments. The following remarks by Dr. Holland are pertinent.

"In investigating the operations of nature, the inquiring mind is perplexed by studying them through the medium of these ever varying systems, which involve the most important subjects of medical and physiological inquiry in almost impenetrable obscurity. There are scarcely any truths in medicine, like the axioms in geometry, or the first principles in philosophy, so universally allowed, and fully established, that the student of this science can rely on their correctness; it is, therefore, absolutely requisite, amidst so many discrepant theories, clashing opinions, and opposite conclusions, drawn from the same experiments, to put every thing to the test of the most elaborate and tedious examination. Another cause, which has retarded the progress of medical knowledge, is *an almost exclusive attention to experiments*.

However valuable the important discoveries which have been made by a recurrence to experiments, much error has arisen from the false inferences that have been frequently drawn from them,—inferences which, though really the mistakes of erroneous observation, have been regarded as incontrovertibly correct.

It is very allowable to doubt the truth of propositions supported by argument alone, but it seems an act of bold temerity to call in question facts, or obvious deductions from them, said to be proved by direct experiment; and hence, whilst the former are fearlessly controverted, the latter are generally received with too easy an assent." *Introd. xx.*

The first chapter is on the physiology of the liver and spleen. Before propounding his own theory respecting these organs, Dr. Holland endeavours to demolish the theories of his predecessors. With regard to the

liver he disproves, or rather attempts to disprove, the idea that the bile is secreted by the vena portæ. His reasons are these :—that all other secretions are performed by arteries ; that in Mr. Abernethy's case there was no vena portæ, and yet bile was formed ; and that in all the molluscæ the liver is very large, and is supplied from the aorta only. We conceive that it would not be difficult to answer these objections.

“ From what has been previously explained, it is evident that the hepatic artery is regarded as the source of bile ; and believing the production of this to be only one function of the liver, it is my intention to account for the great quantity of venous blood transmitted to it and the spleen. Both organs are well adapted to receive a great share of sanguinous fluid, whether we consider the texture as composed of blood-vessels or of cells.

The function of the spleen, as well as that of the liver, independently of the secretion of bile, is considered a *diverticulum* of the system. *If the veins which form the vena porta had passed directly to the vena cava inferior, a thousand accidents, arising either from mental or corporeal disturbance, would have continually placed the life of an individual in imminent danger. Every passion, whether of an exciting or depressing character, and every general and local disease, if severe, whether chronic or acute, would have been liable to have deranged the lungs and heart.* I have already endeavoured to shew, that passions of a depressing nature, bring the blood in greater quantity than usual from the inferior and superior extremities, and also from the surface of the body to the chest ; and have also stated, that the abdominal viscera participate in the engorgement.* Since the body is continually liable to such changes, baneful effects would follow, unless nature had provided organs, whose situation, function, and organization, enable them to diminish the burden imposed upon those whose constant and almost regular action is indispensable for the maintenance of life. This object is beautifully answered by the liver and spleen. The organs within the chest must be regarded as possessing vital functions. If the lungs were surcharged with blood, or in a condition approaching to it, the properties and distribution of this fluid would be immediately disordered, and with this primary derangement every part of the body would quickly sympathize.

The liver and the spleen, from being placed close to the thorax, are calculated to relieve the congested lungs and heart, or rather to protect them from sudden and violent commotions ; and are also favourably situated to protect in the same manner, the stomach, whose action is scarcely less vital.” 20.

Such is Dr. Holland's explanation of the liver and spleen ; and after the note of preparation sounded, we must own that we expected something more. The *diverticulum* theory is somewhat older than the Doctor ; and the only remark we think it necessary to offer is, that he, in our opinion, attributes to it an undue importance. Our author bears hard on the assumptions of others ; yet, if our readers will refer to the present work, they will find, we believe, that his arguments are chiefly assumptions. The second portion of the volume is on the physiology of the fœtus. The following appears to be his theory of the materno-fœtal vascular connexion.

“ The venous blood transmitted by the fœtus to the placenta, is absorbed by veins and conveyed to the lungs of the mother ; the arterial blood derived from the uterus, is absorbed by the umbilical vein, and flows to the heart of the fœtus. We are not capable of forming an accurate idea of the number or nature of those powers which cause, in either case, the return of blood to the heart. It is quite clear, however, that it flows to the placenta from two opposite points, and that it is absorbed and carried to the mother and fœtus

* “ See experimental Enquiry, Chap. xv.”

in a similar way, although not precisely the same, in both instances. The views of BARRY go far towards explaining the circulation of venous blood in viviparous animals after birth, but do not account for its circulation in the fœtus.

It was stated by VIEUSSENS that the red globules of blood were not absorbed by the umbilical vein. The same absurd doctrine was also taught by MONRO, PRIMUS. 'The fœtuses of viviparous animals,' observes the latter, 'have their red blood from the same source that chickens in eggs have theirs, the action of the heart and the vessels in their body and secundines.'*

If oxygen, and that organic construction universally belonging to the respiratory organs of animal and vegetable life be wanting, the process of oxygenation cannot possibly proceed. The simple action of muscles, or vessels, on the particles of blood, cannot create an arterial fluid.

I have already alluded to the impossibility of the placenta performing the office of lungs. If a connexion between the placenta and uterus either of a *direct* or *indirect* kind be denied, it is impossible to account for the origin of fœtus blood. The fœtus possesses not the organs necessary to produce it, and, therefore, it must necessarily pass from the uterus to the placenta." 115.

Thus, he considers it impossible for the fœtus to make blood, because it has no organs of digestion to form chyle, the pabulum, nay the very essence of this fluid, no organs of respiration to oxygenate the chyle when formed. The separation of the placenta, without hæmorrhage after the birth of the child, he believes to be effected by the engorgement of the placenta, consequent on the destruction of its connexion with the umbilical vein—the strong contractions of the uterus exerted upon the placenta—the effect of those contractions in diminishing the capacity of the uterine arteries, and thus directly lessening the connexion of the placenta with the uterus, and also preventing the occurrence of hæmorrhage. Such are the views of Dr. Holland, and for the reasoning by which they are supported we refer to the work itself. As we have not leisure for a critical examination of the hypothesis, we will not offer an *ex cathedrâ* opinion on its merits.

The fœtus has been said or proved to possess a lower temperature than the maternal system; it seldom exceeds 92° or 95° F. The temperature of the fœtus lying dead in the uterus, is said, on the contrary, to be higher. Magendie has attempted to account for this by supposing that the fœtus in utero has some means of lowering its temperature; a very unlikely supposition. We think, *if the fact be a true one*, that the imperfect oxygenation of the blood in the fœtus would account for it. Dr. Holland is of opinion that the distance of the fetal system from the centre of the circulation, the passage of the blood from the uterine arteries of the mother into the umbilical veins of the fœtus, should be regarded as the causes of the phenomenon. He accounts for the living fœtus being colder than the dead one, by the *cooling* processes of circulation, assimilation, and secretion, going on in the former. We were not previously aware that all these were cooling processes, and in truth we look upon the whole of the statements upon the subject with suspicion.

The next subject which engages the attention of Dr. Holland is the origin of the liquor amnii and meconium. For one who is ever inveighing against the disposition of the world to receive theories rather than to sift their prop-

* "Edinburgh Medical Essays, Vol. II. p. 301."

er pretensions, we must say that the absence of every thing like positive facts from his chain of reasoning, is surprising. We again refer our readers to the work itself in proof of our assertion. Dr. Holland is far from timid in reasoning on assumptions.

"If we allow that the amnion secretes, the activity of its function will be admitted to be proportionate to its vital energies; but this activity cannot rationally be supposed to equal that of the well-known powers of the skin, which are engaged, in every period of life, in removing from the surface of the body, perspirable matter. The physiologist may very safely infer, that the amnios is secreted by the skin, from the fact, *that such secretion is its natural and unceasing function, and is, moreover, a necessary consequence of its organization, and the distribution of blood to it.* That it is secreted by the amnion, is very improbable. If the fœtus had been placed in a medium of a temperature much lower than its own, *transudation* from the surface of its body would have been almost wholly prevented; but, as the fluid, in which it is immersed, is of the same temperature as itself, such an effect is rather facilitated than impeded.

'Deux causes,' observes EDWARDS, 'influent principalement sur ces deux fonctions: (absorption and transudation) la quantité de liquide contenue dans le corps, et le température de l'eau dans lequel il séjourne. Plus il y a de plénitude, moins il y aura d'absorption; plus la température de l'eau est basse, moins il y aura d'exsudation. Dans la limite extrême de 30° cent. le contraire a lieu; les pertes l'emportent de beaucoup sur les gains, parceque la transsudation prédomine sur l'absorption.'*

The liquor amnii augments with the developement of the fœtus. If this fluid is exuded from the skin, its gradual increase is in perfect accordance with those principles which are supposed to explain its origin. *The vital actions of the fatus, and a more extended surface for secretion, augment in proportion to the progress of gestation.*" 135.

The meconium is referred to the secretions of the abdominal viscera, totally independent of any digestive process. In a chapter on the nutrition and peculiarities of the fœtus, our author comes to the following conclusion.

"I am not, I believe, too sanguine in my anticipations, when I state, that an acquaintance with these truths, will completely subvert the present doctrines of nervous affections; the prevalent ideas respecting the cause of animal temperature; the common notions of the susceptibility of the body to morbid action; and the views generally taken of the origin of acute and chronic diseases, as well as many other corporeal derangements." 148.

It has been a disputed point with physiologists, whether the blood in the umbilical vein differs from that in the umbilical arteries. Dr. Holland thinks he has set the point at rest in the affirmative by an experiment.

"It has already been stated, in the preceding pages, that the umbilical vein carries arterial blood from the placenta to the fœtus. This opinion is supported by Drs. BOSTOCK and JEFFREY. Physiologists in general are either opposed to this conclusion, or consider it doubtful.† It is really astonishing, that a subject so easy to investigate, and to decide by experiment, has been allowed to remain so long undetermined. From the kindness of my friend Mr. CARR, surgeon, Sheffield, I have been enabled to prove, by an experiment of the

* "De l'Influence des Agens Physiques, p. 352."

† "BICHAT, treating of this subject, observes, 'Les faits précédens suffisent au reste pour établir, comme un fait incontestable, l'uniformité du sang des deux systèmes chez le fœtus.'

simplest kind, that the umbilical vein circulates arterial blood. The following was the method employed by Dr. JEFFREY:—He took part of the cord, and dissected away the gelatinous substance of it, until he had laid bare the vessels, when, on puncturing them, he observed that there was a difference of colour between the blood in the vein and the arteries. Many physiologists are said to have failed in this experiment. From the tedious preparation which it required I did not succeed to my full satisfaction. But on taking part of the cord, as soon as the child was born, around which I had previously tied a ligature, about two or three inches from the free extremity, and cutting this with a sharp scalpel, in order to make an even surface, I very clearly discerned, on pressing the cord from below upwards, blood of a very different colour, flowing from the umbilical vein and arteries. If the experiment does not fully succeed in the first instance, tie a ligature still farther removed from the end, and, having made a fresh surface, press gently from below upwards. Sometimes a large drop of florid blood is observed to stand directly over the umbilical vein, and another dark coloured over the arteries, without their being in the least mingled with each other, and, in this case, the difference between the two is so striking that no one can fail to observe it. This experiment being so simple, and requiring no previous preparation, any individual of the most ordinary powers, or unscientific character, may easily perform it." 154.

He thinks that the frequency of the heart's action in the fœtus, will tend to render the blood less black for the following reasons.

"The whole mass of blood of an adult circulates throughout the system once every three minutes, because the heart contracts about 75 times per minute; if it contracted oftener with equal or superior energy, the same quantity of blood would complete its revolution in considerably less time. The heart of the fœtus, instead of contracting 75 times per minute, contracts, at least 120 times. In considering this subject, we must not forget, *that there is the same relation between the heart of the fatus and the quantity of blood belonging to its body, as there is between that of the adult and the quantity of blood circulating in its system.*

It is therefore obvious, if the fœtal heart contracts 120 times per minute, that the complete circulation of the blood in its system will be effected in almost half the time of that of the adult, and consequently, although venous blood is always mingling with the arterial fluid of the umbilical vein, the blood of the fetus cannot be particularly deteriorated from this circumstance, because the whole mass is frequently renewed by the very numerous contractions of the heart. If this contracted 75 times instead of 120, the relation between it and the mass of the circulating fluid remaining the same, the arterial qualities of the blood would be diminished almost one-half." 156.

In the eighth chapter Dr. Holland endeavours to prove that the brain, the spinal cord, the stomach, the liver, the pancreas, and the intestines are not essential to fœtal life. In the ninth, he considers the uses of the suprarenal capsules, the thymus, and the thyroid glands of the fœtus, and decides that they are *diverticula* to the organs in their proximity. In the tenth chapter Dr. Holland points out the differences in the mode of nourishment between the oviparous, and ovo-viviparous, and viviparous animals. The last chapter is devoted to the influence of the imagination of the mother on the development and constitution of the fœtus. Into all these points our readers will hold us excused for not entering. We have given a sufficient number of extracts to enable the public to form an opinion respecting the manner and merits of Dr. Holland's essay. For our own part, we un-

hesitatingly assert that it is distinguished by a great superfluity of theory, and an equal deficiency of tangible facts. The author has been free in censuring the world for their disposition to believe on slight grounds, or no grounds at all, and if he has laid himself open to a similar charge, he must not be annoyed or astonished, if the world, through our mouths, retort. Yet in justice to Dr. Holland, we must say that he evinces, on many occasions, considerable ingenuity, a fair acquaintance with the rules of argument, and we think his criticisms frequently alike just and shrewd. Dr. Holland may complain that we pronounce a dogmatic opinion on the work; that we condemn without shewing fair grounds for our condemnation. To this we reply, that we have done Dr. Holland more justice than ourselves, for our aim and object have been to shew his opinions and say very little respecting our own. The extracts which we have given will in some measure enable our readers to determine, whether our remarks are founded in justice or not.

VI.

A PRACTICAL TREATISE ON THE DISEASES OF THE EYE. By *William Mackenzie*, Lecturer on the Eye in the University of Glasgow, and one of the surgeons to the Glasgow Eye Infirmary. Svo. pp. 861, London, 1830.

[Second Analytical Article.]

IN a former article we made our readers acquainted with Mr. Mackenzie's sentiments respecting inflammation of the conjunctiva, sclerotica, and cornea. In considering the remainder of the ophthalmiæ, or inflammatory diseases of the eye, many subjects press on our attention. We must view the iris, the choroid, the retina, the capsules of the lens and vitreous humor in a state of inflammation, and then we must look to the traumatic ophthalmiæ, the compound, and the intermittent. A knowledge of these affections is of no mean importance to the general practitioner, as well as to the surgeon and physician, indeed no man, whatever may be his designation or rank in the profession, can practice it with credit, or with justice to the community, unless he be well informed in these matters. In acute inflammation of the more delicate textures of the eye, a blunder from ignorance, or delay from doubt, may make the difference between the continuance of vision or the utter loss of it. We cannot too strongly impress upon the minds of students, the paramount necessity of making themselves masters of this department, at least, of ophthalmic science. Without much practice it is impossible for any man to perform in a satisfactory manner the more delicate operations on this delicate organ, indeed, he is hardly justified in attempting them. But all may instruct themselves in the principles of treatment of those diseases of the eye which all must have an opportunity of witnessing, and the management of which most men will find themselves called on to undertake.

IRITIS.

The discrimination of this disease has formed a highly important addition to our knowledge. It often exists independent of inflammation in the other textures of the eye, and its insidiousness and danger render it a matter deserving of great attention. There is always a degree of sclerotic inflammation attending it, and the anterior hemisphere of the capsule of the lens is more or less affected, whilst too often the inflammatory action extends to the choroid and retina. The iris, however, is the focus of the disease, which commences on its pupillary margin, and thence spreads to the parts alluded to. The sclerotic inflammation appears to be sympathetic. That the iris only is in many cases affected seems proved by the fact that an artificial pupil often restores vision, when the natural pupil has been closed by inflammation. Before proceeding to treat of the varieties of iritis, we are presented with a section on the affection in general.

"Symptoms. There are certain symptoms which characterize inflammation of the iris, from whatever cause it proceeds.

1. Zonular scleritis; fine hair-like vessels running in radii towards the edge of the cornea.
2. Discolouration of the iris. If naturally blue, it becomes greenish; if dark-coloured, reddish.
3. Contraction, irregularity and immobility of the pupil.
4. Effusion of coagulable lymph into the pupil and posterior chamber, and occasionally into the interior.
5. Adhesions of the iris, and especially of its pupillary edge, to the capsule of the lens; in some rare cases, to the cornea.
6. Dimness of sight, and sometimes almost total blindness.
7. Pain in the eye, and nocturnal circumorbital pain.

In every case of iritis, a sufficient number of these symptoms will be met with, to enable the observer to decide on the seat of the disease which is before him. All of them are by no means invariably present. We sometimes find, for instance, a dilated pupil in iritis, probable from the coexistence of amaurosis; and in some otherwise well-marked cases, there is not the slightest circumorbital pain. The disease may also exist in a very marked manner, without any effusion of lymph, or preternatural adhesions of the iris, these being part of the changes which take place only in the second stage of iritis." 423.

Causes. These are various. Exposure to atmospheric changes, especially transitions from heat to cold—syphilis and syphiloid diseases—struma, the iritis being usually secondary to corneitis—gout—and local injuries, are the causes which are best ascertained. Iritis has also been described as arising from mercury, and from typhus fever.

Prognosis. Iritis may exist in different degrees of severity, and on these the chance of cure must entirely hinge. *In the first degree*—the vascularity in front of the sclerotica is very slight, and existing sometimes only in one or more points, or behind the upper lid, where it might not be discovered—the inner ring of the iris is slightly discoloured—the pupil is of medium-size, but wants its usual clean sharp edge, and may be irregular or misshapen, it is hazy, and its motions are limited and slow—vision is slightly obscure and confused—there is no severe pain and scarcely any intolerance of light. This iritis may exist for many weeks, and yet, by proper treatment be com-

pletely overcome. *In the second degree*—the external inflammation is considerable and obvious, the sclerotica presenting round the cornea innumerable ramifications of vessels, forming a complete radiated zone—these vessels seem to terminate abruptly, as if sinking through the sclerotica, and never advance into or over the cornea—the inner, and partially the outer ring, of the iris are discoloured from its injection with blood, or perhaps from effusion of lymph into its substance, a change of colour which is apt to be permanent—the anterior surface of the iris appears dull, puckered, and swollen, especially near the pupil, which is retracted towards the lens—the pupil is contracted, irregular, motionless, and filled with coagulable lymph, looking like half-boiled white of egg—vision is greatly impaired—epiphora and intolerance of light considerable—the pain of the eye pretty constant, and attended during the night with circumorbital hemicrania—and there are symptoms of inflammatory fever.

“From such a state of the eye, recovery to a certain extent may take place even without any very methodical treatment. By the use of proper remedies, the inflammation will gradually be subdued, and the effused lymph be absorbed; the contracted pupil will expand, though probably never so completely as to regain its natural size or mobility, and a tolerably fair state of vision will ultimately be recovered. As the symptoms yield, whitish threads of organized lymph will become evident, binding at different points of the edge of the pupil to the capsule of the lens. These adhesions are capable of being elongated in time, but never disappear entirely, and necessarily impede the functions of the iris. In other cases, the whole of the edge of the pupil is fringed with lymph, firmly gluing it to the capsule, the centre of which may also be left opaque from lymphatic deposition, in which case the patient sees only through the imperfectly transparent ring left between the central opacity of the capsule, and the fringed edge of the pupil. It sometimes happens in this degree of the disease, that the posterior surface of the annulus minor, which is covered with pigmentum nigrum, having been glued by lymph to the anterior capsule, the proper substance of the iris, as the inflammation subsides, regains, in a considerable measure, its power, and the pupil is enlarged, while the pigmentum nigrum remains adherent to the capsule, and is seen of a black colour fringing the edge of the pupil, and constituting a variety of what has been called *cataracta pigmentosa*.” 425.

In the third degree of iritis, the surface of the eye is much more intensely inflamed.

“The conjunctiva may be so much so, as completely to mask for a time the zonal redness of the sclerotica. Both the annulus minor and major of the iris lose their natural colour. The anterior surface of the iris is puckered, swollen, and bolstered forward so as to approach the cornea, except its pupillary edge, which is retracted towards the capsule of the lens. Red vessels and spots of blood may sometimes be discovered on the surface of the iris, and still more frequently in the lymph which occupies the contracted pupil. On the surface of the iris, one or more minute elevations of a yellowish colour make their appearance, which in some cases are merely spots of effused lymph, but in others prove small abscesses. Pus, discharged from these, with lymph, and blood, occupy the anterior chamber. The cornea becomes turbid, so as to resemble a piece of glass which has been breathed upon, and in some cases is dotted over with minute brownish spots. Vision is completely, and, in general, permanently lost. Flashes of light in the eye are frequently perceived by the patient, proving that the disorganization is extending to the choroid and retina. There is great intolerance of light, and copious lachrymation. The pain of the

eye which attends this third degree of iritis, is in general constant and excruciating, and attended with severe nocturnal pain in the eyebrow and round the orbit. When the case is attended by severe and unmitigated pain, especially in syphilitic cases, there is reason to dread the most serious changes in the eye, even abscess of the anterior chamber, extenuation of the sclerotica, and protrusion of the choroid immediately behind the cornea, disorganization of the vitreous humour, and ultimately atrophy of the eyeball." 426.

In this degree of iritis the prognosis must always be unfavourable, for under the most prompt and proper treatment, any thing near to a perfect recovery of the eye never takes place. The inflammation will subside, the effused lymph and pus will be taken up from the anterior chamber, but the pupil will never become entirely clear, nor regain almost any degree of motion. Sometimes the iris is so contracted that no vestige of pupil can be discovered, most frequently it remains of the size of a pin-hole, through which a considerable share of vision may be enjoyed, though in most instances this is not the case: and in many, the choroid and retina being diseased, not even an artificial pupil can restore vision.

The distinction of acute and chronic iritis is of great importance. The former takes place in robust individuals, from powerful causes, and more especially if the case has at first been neglected. There are bright external redness, great distention of vessels, rapid and general change of colour in the iris, contraction of the pupil, effusion of lymph, dulness of the cornea, loss of sight, agonizing pain of the eye, severe headach, and considerable fever, restlessness and want of sleep. In a few days vision is irreparably lost. The chronic iritis may arise so imperceptibly, and proceed so slowly that the patient has been known to find accidentally that the vision of the eye is gone. Extension of the inflammation to the rest of the organ occurs more readily in acute cases, yet may equally take place in the chronic. The prognosis must be drawn from the time the disease has lasted, its cause, and its visible effects. In the acute affection irreparable injury may be done in a few days, or, if only ordinarily severe, a fortnight, three weeks, or a month may elapse without serious mischief; in the most chronic form recovery may be expected after a still longer period.

Sequelæ of the Disease. The most striking are the changes which the pupil undergoes. The inflammatory symptoms, however severe, begin after a time to abate; if pus and blood have been effused they are gradually absorbed: if an abscess has formed on the iris, the shreds of the cyst at length disappear; and the anterior chamber regains its transparency. In many cases the iris remains permanently expanded, with its motions annihilated. The greater circle may in some measure resume its natural colour, but the lesser does not. The puckered appearance of the iris remains, the pupil is almost closed, and filled by an ash-coloured membrane, the power of vision is entirely lost. This is called *atresia iridis completa*. The condition of the iris is not always so bad. Perhaps there has been no abscess, nor any great quantity of lymph; the iris is left considerably expanded, but still possesses some mobility, and possibly its natural colour may be almost restored. Though the pupil is contracted below its medium size, the coagulable lymph occupying it is reduced to the state of fine pseudo-membrane, mostly opaque in the centre, but somewhat transparent, perhaps

reticulated at the edge. The pupillary margin of the iris does not adhere to it all round, but only at some points, rendering the pupil very irregular, impairing vision but not destroying it, constituting *atresia iridis incompleta*. In a third set of cases only a part of the iris has been inflamed, and a mere thread of opaque matter remains in the otherwise transparent pupil. By this only a single point of the margin of the pupil is kept fixed, and this is termed *atresia iridis partialis*.

Diagnosis. The ophthalmiæ with which iritis is apt to be confounded, are rheumatic and catarrho-rheumatic ophthalmiæ, corneitis, aquo-capsulitis, inflammation of the crystalline capsule, and retinitis. Of the first three we have already given a description in a preceding article, and of the last three we shall treat presently; consequently we need not detain our readers with the diagnostic marks of these diseases.

General Treatment of Iritis. The chief indications are, to subdue the inflammation; to prevent the effusion of lymph, or promote its absorption; to preserve the pupil entire, or, if contracted, to dilate it; to assuage the pain. Blood-letting must not be neglected; if the patient is robust it must be vigorously employed. General bleeding must be resorted to till the constitutional irritation is abated, and then leeches may be freely applied round the eye every second or third day. Purging, diuretics, the antiphlogistic regimen, and shading both eyes from the light are powerful auxiliaries. Antimony and other nauseants are doubly useful; opiates imperatively demanded by the severe nocturnal pain; mercury a most valuable remedy; turpentine has been recommended lately by Mr. Carmichael; blisters behind the ears are of service after sufficient depletion. Belladonna, in the first degree of iritis, speedily expands the pupil; in the second and third it has no effect till the inflammation has been considerably subdued. It ought to be employed in every case and in all stages of the disease, the extract being smeared on the brow and upper eyelid every evening. Even in neglected cases, where the pupil has become almost obliterated, the continued use of belladonna, for many months, is sometimes attended with gradual dilatation, and improvement in vision. In short, after taking away blood, Mr. Mackenzie would never hesitate to apply belladonna. Such are the general remedies for iritis; its particular varieties require particular modifications of treatment.

I.—RHEUMATIC IRITIS.

Attending on the rheumatic and catarrho-rheumatic ophthalmiæ, there is in general a certain degree of iritis. But there is a third set of cases, arising, like the preceding, from atmospheric changes, in which the iris is chiefly affected, and the attack sudden, as in other diseases caused by external influences. Not unfrequently both eyes are affected with nearly equal severity; in other cases only one eye is inflamed, or one much more severely than the other.

Local Symptoms. At the very commencement of the disease changes occur indicative of the peculiar seat of the inflammation; they uniformly commence on the edge of the pupil, and gradually extend towards the

circumference of the iris. The pupil is first of all contracted, the motions of the iris impeded, and the pupillary opening deprived of its natural bright black colour. Then the colour of the iris changes; first the lesser circle becomes of a darker hue, and afterwards the greater grows green, if it had formerly been greyish or blue; reddish, if it had been brown or black. This is a never failing index of inflammation of the iris, and is apt to continue after the other symptoms of the iritis have been subdued. As soon as it has taken place to a considerable degree in the greater circle, the iris swells and projects towards the cornea, while the pupillary margin is somewhat thickened, and is turned back towards the capsule of the lens. The accompanying redness is not great, and is at first confined to the sclerotica, in which a number of minute red vessels are seen, running in lines towards the cornea. By and bye the redness increases, and partly arises from vessels developed in the conjunctiva; the vascularity is greatest round the cornea, and fades away towards the folds of the conjunctiva. There is pain in the eye, severe and pulsative in many cases, and increased on motion of the organ; pain in the eye-brow; and circum-orbital nocturnal pain.

If the disease is not checked, the pupil loses its circular form, and becomes irregular and greyish. Examined through a magnifying glass its appearance is seen to be produced by a substance very like a cobweb, a delicate flake of coagulable lymph. Into this the dentations of the irregular pupillary margin of the iris seem to shoot, and, at this point, adhesions are afterwards apt to be established between the iris and capsule. Owing to these adhesions the patient complains of being able to see only one side or part of an object.

The effusion of lymph into the pupil continues to increase, and, taking place behind the iris, adhesions are formed between the uvea and capsule of the lens. The quantity of lymph is sometimes so great, as to fall down like curd into the anterior chamber. The morbid sensibility to light, which prevailed in the early stage of the disease, is now diminished; the powers of vision grow more and more limited, and at length little more than perception of light remains. Not unfrequently, the lymph occupying the contracted pupil gives rise to the sensation of a black spot, or fly, or several such spots, placed at some distance before the eye, and partially intercepting the view of objects placed before or to one side of the patient.

As the disease goes on, the cornea loses some of its brilliancy, and sometimes striking changes take place on the anterior surface of the iris. Spots of lymph occasionally form upon it; at other times lymph appears deposited in its substance, its fibres getting collected into bundles, and its surface acquiring a peculiar plaited or puckered aspect. In some cases one or more small yellowish-red elevations form on the anterior surface of the iris, commonly about the union of its greater and lesser circles; the elevation gradually increases, is distinctly seen to be a cyst containing pus, bursts, and discharges its contents into the anterior chamber, thus giving rise to spurious hypopium, a small quantity of blood being extravasated into that cavity at the same time. Such is the general history of a neglected case of rheumatic iritis, though many varieties of severity are met with. The inflammation will at last subside, even though no remedies are employed, but then the vision is generally lost.

Constitutional Symptoms. This may attack an individual who has never suffered from rheumatism elsewhere. Not unfrequently the subjects have long been subject to other rheumatic affections, though Mr. Mackenzie has never seen this affection arise from any thing but a fresh exposure to cold. During the attack there is pyrexia, frequently constipation, occasionally nausea.

Causes. They are the same with those producing rheumatic ophthalmia. Some persons suffer from one or more attacks of this disease every year, till at length vision is destroyed. This iritis frequently occurs during or after the use of mercury.

Complication with Amaurosis. This is by no means rare, and is particularly frequent after typhus fever, a disease extremely apt to leave the retina more or less insensible, and the pupil dilated.

"Mr. Wallace has described the complication of amaurosis with iritis after typhus fever, as presenting two distinct stages. During the first stage, there exist amaurotic symptoms alone; in the second, symptoms of inflammation are superadded. The length of time that the amaurotic symptoms continue, before the occurrence of any visible appearance of inflammation, is extremely uncertain, as also the period after fever at which the amaurotic symptoms commence. On many occasions, the amaurotic symptoms, particularly a slight dimness of vision, with *muscae volitantes*, have commenced at or even before the time of convalescence from fever, and yet the inflammatory stage has not supervened for weeks or even months; while on other occasions the dimness of vision has not commenced for several days, weeks or even months, after the febrile attack, and has then been immediately followed by the symptoms of inflammation. Mr. W. never saw a case in which, upon strict inquiry, amaurotic symptoms, more or less strongly marked, had not preceded the inflammatory symptoms. He also observed that the inflammatory symptoms uniformly subsided a longer or shorter time before the amaurotic symptoms disappeared, and often before they had even diminished in severity."* 434.

Treatment. Repeated venesection is almost always necessary, followed by the free application of leeches round the eye; the degree of depletion must be regulated by the symptoms. As soon as the mouth is affected by mercury we observe the most marked abatement of the symptoms, but the slightest exposure to cold will induce a relapse with ten fold severity. The patient must confine himself within doors, if the case be severe he must keep his bed; the room should be darkened, there should be a moderate fire in it, if in Winter, a band of flannel should be constantly worn round the head, and several folds of linen over the eye. In pauper patients, out of hospital, it becomes a difficult question whether we can venture on mercury at all. Turpentine may be tried; rest and the antiphlogistic regimen must be strictly enjoined. If calomel is given, it is combined with opium, at bedtime. If we do not give calomel, a powerful opiate should be given every night. Friction of the head with warm laudanum, or with mercurial ointment containing opium, is to be employed, but if these means fail to prevent the nocturnal pain, fomenting the eye-lids and parts around with

* "Medico-Chirurgical Transactions, Vol. xiv. p. 294. London, 1825."

flannel cloths wrung out of poppy decoction is beneficial, the parts being dried immediately after the fomentation, and the linen compress, previously heated, being then replaced. Moderate purgatives and diuretics are of service. Diaphoretics require caution.

Cinchona is undoubtedly useful in certain cases, but, as might well be expected, it is not so in all. It is chiefly serviceable in the combination of amaurosis with iritis after typhus, but still Mr. Mackenzie is of opinion that the treatment of this is best commenced with depletion and mercury. The acute symptoms having been subdued by these means, cinchona or quina are useful, not only in this species, but in ordinary rheumatic iritis. In the combined iritis and amaurosis after typhus, our author suspects some lingering congestion of the head, for in a case which he lately treated immediate relief was afforded by the abstraction of thirty ounces of blood from the arm, after various other remedies had failed. Blisters are more serviceable in rheumatic iritis than in any other. The laudanum with which the head is rubbed for the nocturnal pain may be mixed with an equal quantity of tincture of cantharides. Belladonna should be freely applied morning and evening. The vinum opii is useful in the decline of the disease; any other application is injurious. After all, prevention is better than cure. Let those subject to the disease avoid its exciting causes. Sea-bathing in Summer sometimes prevents relapses, and removal to a southern climate during the Winter may save a patient from his usual attack.

The next section, which treats of SYPHILITIC IRITIS, we shall pass without further notice, having lately dedicated so much space to this ophthalmia in our analysis of Mr. Lawrence's book. We have no such obligation to prevent us from touching on—

II. PSEUDO-SYPHILITIC IRITIS.

The *ecthyma cachecticum* of Bateman is apt to be confounded, says Mr. Mackenzie, with true syphilis, and no doubt it occasionally affects the iris in a manner closely resembling syphilitic iritis. Of the *ecthyma cachecticum* we need not give a description; suffice it to say that, according to Dr. Bateman, it is quite curable by vegetable tonics, and that the administration of mercury is neither necessary to, nor appears to accelerate recovery. Dr. Monteath affirms that, for several years he treated cases of iritis successfully with mercury, believing them to be syphilitic, but that seeing such disease evidently decline, after two or three weeks' continuance without a grain of mercury being taken, he felt satisfied that the cases were not syphilitic. In these cases the small circle of the iris and the border of the pupil are often studded with the small reddish-yellow papulæ or pustules, so characteristic of the venereal iritis. Mr. Mackenzie recommends, notwithstanding, an alterative course of mercury, aided by sarsaparilla, local bleeding, blisters, belladonna, mild diet, &c. Turpentine is worthy of a trial. Among the pseudo-syphilitic varieties of iritis, Mr. Mackenzie includes that which occasionally follows gonorrhœa. Such are the observations on pseudo-syphilitic iritis, and if they amount to little or nothing, they are about as much to the purpose as any other descriptions of what is called pseudo-syphilis.

III. SCROFULOUS IRITIS.

The iris is rarely the seat of primary scrofulous inflammation, but after scrofulous inflammation of the cornea, it is by no means uncommon as a secondary affection. In a scrofulous subject, however, cold occasionally brings on a mixed ophthalmia, partly phlyctenular, partly iritic, or at least the latter so speedily supervenes to the former, that we may regard it as primary scrofulous iritis. Whenever iritis is observed in a very young person, struma may be suspected as the predisposing cause, the other varieties being rare in childhood. The treatment must consist in the exhibition of calomel and opium, in addition to the remedies required for strumous ophthalmia. The pupil should also be kept under the influence of belladonna. The same plan must be followed in secondary iritis, following strumous corneitis. The difficulty of ascertaining the state of the iris through the inflamed cornea has already been adverted to, and many of the symptoms are equivocal. When the opacity of the cornea is not very great, we may discern at least the size and mobility of the pupil, and if it is contracted, irregular, and motionless, severe iritis has been present. In many cases, by concentrating the light upon the cornea through a double convex lens, we may even observe the discolouration of the iris, and the whitish cobweb of effused lymph occupying the pupil. Neglected cases of this disease are often met with, in which vision has become almost extinct. In such cases there is a remarkable degree of softness or boggianness both of the cornea and sclerotica when pressed by the finger. This is, in Mr. Mackenzie's opinion, a very unfavourable sign, denoting a disorganization of the vitreous humour, always attended by a considerable degree of iritis.

In treating this disease we must attempt, by mercury and belladonna to counteract the contracted state of the pupil and effusion of lymph from the iris. Mercury must be given with more than ordinary caution and patience, the gums requiring in the first instance to be decidedly affected, after which repeated gentle courses of the medicine will be necessary, the system being supported in the intervals by nourishing diet and tonics. Turpentine has not been tried. We must beware of stimulants to the cornea, so long as any iritis is present, or we may bring on an irreparable degree of irritation.

IV. ARTHRITIC IRITIS.

Mr. Mackenzie is not quite satisfied of this iritis being of so purely a gout character as the German ophthalmologists maintain. However, gout not being so common a disease among the poorer classes of this country, and particularly we should imagine of Scotland, as in the wine countries of the Continent, Mr. Mackenzie does not feel justified in pronouncing a confident opinion on the subject. Arthritic iritis originates in two ways. In one case, it is the primary and sole affection of the eye; in the other, a gouty person being affected with some gouty ophthalmia, this degenerates into iritis.

Symptoms. The general symptoms of iritis are present in this species,

but so modified as to afford ground for a ready diagnosis. Both the conjunctiva and sclerotica are loaded with enlarged vessels, the redness of a purplish hue, and, what is strongly insisted on as a diagnostic mark, the inflamed vessels stopping abruptly before reaching the edge of the cornea by a narrow ring of a bluish-white colour. This ring sometimes does not occur, particularly at the commencement of the disease, all round the cornea, but only at its temporal and nasal sides. The visible arteries of the eye shew from the very first a strong disposition to be varicose, and at length are so dilated as to form another characteristic symptom. The sclerotica becomes of a dirty greyish-violet colour. The iris and pupil exhibit changes varying in two different habits of body. In those of a meagre irritable habit, the pupil contracts, is filled with effused lymph, and becomes adherent to the capsule, as in the other species of iritis. The only characteristic symptom, besides the white ring round the cornea, is a varicose state of the vessels of the iris, which may be observed ramifying on the surface of that membrane, or forming a vascular wreath within the verge of the contracted pupil. Before the inflammation arrives at this stage there is always general fever. The eye, if left to itself, does not suppurate, but its contents begin to be absorbed, and at last its volume is extremely diminished. In those of a gross habit of body, with little sensibility, the iris, instead of expanding, contracts remarkably, a sign of attending amaurosis, and loses its motion and natural black colour. The pupil is not always uniformly dilated; not unfrequently the iris contracts more towards the temporal and nasal sides of the eye, so that the pupil assumes an oval shape, indeed the iris sometimes becomes so narrow on these sides, as nearly to disappear. There is no effusion of lymph, nor any formation of pus. Behind the enlarged pupil is perceived the greyish green glaucomatous reflection, depending on absorption of the pigmentum nigrum, with dissolution of the vitreous humour, and occasionally accompanied by discolouration of the lens. After a time the lens has lost its transparency, and assumed an opaque sea-green colour, it swells considerably, and projects through the pupil into the anterior chamber. The iris lying on it seems much altered, looking soft, and as if it had undergone a degree of maceration. The varicose state of the vessels of the conjunctiva increases, while those of the choroid, becoming similarly affected, form bluish knots, which shine through the sclerotica. The anterior part of this tunic being extenuated by the pressure of the morbid parts within, a dark ring shines through it, exactly occupying the situation of the corpus ciliare. Vision is now totally gone. The inflammatory symptoms begin to decrease, absorption of the eyeball follows, and in either variety of this disease, if both eyes are not simultaneously attacked, the same process invades the one after the other, till both are destroyed.

"Pain. It sometimes happens that before any other signs of arthritic ophthalmia make their appearance, the patient is troubled with peculiar tingling sensations about the eye, and a feeling of creeping over the skin of the face. The eye and the orbit soon become the seat of racking pain, extending to the temple, and shooting down into the jaws. During the progress of the changes of structure above detailed, the attacks of pain are regular and very severe, greatly aggravated in general towards midnight, but in some cases suffering little abatement at any period of the twenty-four hours. The patient is warned of their

approach, by a stinging sensation all round the eye, followed by an increased flow of tears; after which, the pain sets in, and becomes, in many instances, so extremely violent, that the patient is forced to writhe under it, and to utter the most piercing cries of distress.

Secretion from eyelids. The epiphora which attends arthritic inflammation of the iris, leads to frequent opening and shutting of the eyelids, by means of which there is forced out from between them, a peculiar white frothy matter, which Beer regarded as diagnostic of arthritic ophthalmia, and which is easily distinguished from any of the ordinary secretions of the conjunctiva or Meibomian follicles. On examining this foam or froth, it appears to consist of extremely minute globules of watery fluid." 453.

Constitutional Symptoms. The subjects of arthritic iritis have generally suffered more from the symptoms of irregular than of regular gout. They generally present the marks of the gouty constitution, and are liable to dyspeptic symptoms, headaches, irregular bowels, pains in various parts, eruptions of suppurating tubercles on the face, &c. These patients have generally adopted an erroneous plan of diet, and especially indulged in alcoholic fluids and tobacco. The prognosis is more unfavourable than in any other species of iritis. A first attack may continue for months, and though it then yield, a relapse is always to be dreaded. Besides this, the disease has a strong and most unfortunate tendency to affect the choroid, retina, and humors, so that, though the attack be several times iritic, the rest of the eyeball becomes at length implicated and destroyed.

Treatment. The indications are, to remove the inflammation—subdue the pain—prevent relapses. The inflammation is of an unsound, peculiar, and constitutional nature. General bleeding is seldom advisable, and even cupping and leeches must be cautiously employed. If we venture on general bleeding, the quantity of blood drawn should not exceed ten or twelve ounces, and, if necessary, this may again be abstracted in twelve or twenty-four hours. In most cases leeches to the temples, forehead, and eyelids are preferable. One or more smart doses of calomel and colocynth, followed by salts and senna, should be given to open the bowels freely; if the tongue continues foul, a common dose of ipecacuan and tartar emetic may be useful, after which, laxatives and some mild diaphoretic. The free use of mercury is improper, but an alterative course, with remedies directed to the digestive organs, is very beneficial. We have no experience of turpentine. Mr. Mackenzie has sometimes derived very striking benefit from the precipitated carbonate of iron, after depletion and mercury had failed. Sulphate of quina might be tried with some hope of success. Counter-irritation by blistering, or the tartar-emetic ointment is of great service. Dry warmth, by means of several folds of old linen, heated at the fire; hung over the eye, and renewed frequently, is the only direct application that can at all times be safely used. Cold applications do harm; hot fomentations are not always harmless, especially if the parts are left wet and exposed afterwards.

Moderation and speedy removal of the fits of pain is of great importance. Beer recommends opium, rubbed to the consistence of a liniment, to be rubbed in round the orbit; but mercurial ointment with opium and extract of belladonna, or volatile liniment with laudanum, may be applied when the evening paroxysm is expected to recur, and repeated, if necessary during the night or day. Opium internally should be avoided unless the pains

become very urgent, but much relief may be obtained by the other and milder narcotics. Our author has found a vinous solution of the murias hydrargyri with belladonna, a convenient form for exhibiting the latter medicine as a sedative, and the former as an alterative in this disease. The apparent causes of the occasions of pain, as, agitation, changes of temperature, &c. must be avoided.

Relapses are to be ward off, partly by constitutional, partly by local means. The former are in part medicinal, chiefly dietetical. A temperate diet, gentle aperients, promotion of the action of the kidneys by magnesia and soda water, or some mild aperient and diuretic mineral water, will be highly beneficial. Daily tepid sponging of the body followed by dry friction, pure country air, regular, continued and varied exercise, and the avoiding of sudden changes of temperature are all important. If the patient has been long accustomed to wine he may be allowed a small quantity of spirits and water.

“After an attack of gouty inflammation in the foot, we see the parts continue long tumid, weak, and morbidly sensible, while the most trifling accident, internal or external, is apt to produce a relapse. The same is observed in regard to the eye, only that in this organ we have the advantage of directly witnessing the exceedingly relaxed, varicose, and livid state of the blood-vessels, an indication of how much is wanting to restore the affected parts to their natural tone. Even after an acute attack of arthritic iritis is subdued, some counter-irritating means ought to be continued, such as a seton in the neck, and recourse should be had to the use of local applications of a tonic kind. As a means of this sort, the Germans are in the way of using small bags of dried aromatic herbs, suspended over the eye. The bags are made of old linen, and are quilted, so as to keep the herbs equally spread out. The aroma, constantly emanating from the herbs, imparts a permanent, pleasant, and useful stimulus to the debilitated blood vessels and nerves. The best herbs for this purpose, are bruised chamomile flowers, sage, rosemary, marjoram, and the like, with or without the addition of a little powdered camphor. If the exhaled aroma reproduces redness of the eye or aversion to light, this will indicate that the proper time for the use of local stimuli has not yet arrived, and that they must be postponed. Friction round the orbit once or twice daily with alcohol, tinctura aromatica ammoniata, or the like, is another local preventive measure which is found of use. Even stimulants to the eye, as vinum opii and red precipitate salve, beginning these preparations in a dilute state, and gradually augmenting their strength, are found to abate the morbid sensibility of the eye, and thus render it less apt to suffer from the ordinary external as well as internal causes which produce inflammation. It must not be forgotten, however, that remedies of this kind, if used before the inflammation is completely subdued, will, as in every other species of iritis, produce the very worst effects.” 457.

V.—CHOROIDITIS.

The choroid coat being completely hid from view and exercising only a subsidiary function, inflammation of it has scarcely attracted attention. In an early stage this is one of the least striking of the ophthalmiæ, and the disorganization which it produces when advanced, has either escaped notice, or not been referred to its true and legitimate cause.

“I have already had occasion to mention, that iritis is occasionally attended by inflammation of the choroid. Were we to adopt the common notion, that the iris is a continuation of that membrane, we might be led to conclude, that choroiditis and iritis should always go together. Perhaps, in some degree, this may still be the case. At the same

time, from the arteries which nourish these two parts being quite distinct in their course and distribution, the idea of a separate iritis, and a separate choroiditis, is *a priori* rendered probable.

"For some time, the separate existence of choroiditis was with me rather a matter of speculation, and a conclusion from analogy, than a fact ascertained by observation. I am now convinced, however, that the choroid is sometimes the seat, almost quite independently, of inflammation; that in certain cases of ophthalmia, it is the focus of the disease, and that the neighbouring parts may be as little affected when that is the case, as the sclerotica is in iritis, or the iris in scleritis. That it is of importance to distinguish the disease which I am now about to describe, will appear very evident, when we consider its dangerous nature. Its symptoms, as we shall immediately see, are very different from those of any other ophthalmia; and although ultimately the whole eye may be involved by inflammation commencing in the choroid, yet choroiditis, in the early stage, exists without any signs of disease in the iris, and without any other effects upon the sclerotica and retina, than those which must necessarily arise from the pressure of an inflamed and swollen membrane, placed in contiguity with other membranes, more or less susceptible of suffering from that pressure. I consider choroiditis, therefore, as completely a primary and distinct disease." 458.

Symptoms. From the pressure outwards of the inflamed and tumefied choroid, the exterior tunics of the eye become attenuated, so that the choroid shews its dark colour through the sclerotica, which therefore appears blue or purplish. This is a remarkable, and often an early symptom. The degree of discolouration varies with the severity and duration of the attack. After a time the affected part protrudes, commonly on one side only, near the cornea, as if the corpus ciliare was the seat of the disease, and more frequently above or to the temporal side of the cornea than below or to its nasal side. The tumour may enlarge to the size of half a filbert, or more, when it is generally of deep blue colour, with varicose vessels running over it, and has been called *sclerotic staphyloma*. Several such tumours may surround the cornea. The front of the eye is not the only seat of this sclerotic, or rather choroid staphyloma. Scarpa twice met with staphyloma of the posterior hemisphere of the sclerotica in the dead body. In one case, that of a woman forty years of age, who had lost the vision of the affected eye some years before, in consequence of an obstinate painful ophthalmia, the vitreous humour was found converted into limpid water, the chrysalline somewhat yellowish, but not opaque; there was a deficiency of the nervous expansion of the retina within the cavity of the staphyloma; the choroid was very thin at this part, deprived of its natural colour, and its usual vascular network; and the sclerotica, particularly at the apex of the staphyloma, was so thin as scarcely to equal the thickness of writing paper.

There is no doubt that the vessels of the choroid are greatly enlarged; our author saw, in the hands of Professor Beer, a preparation in which the varices of an inflamed choroid were as large as small peas. But frequently the distention of the choroid and sclerotica is connected with an effusion of watery fluid between the choroid and retina. This Mr. Mackenzie has frequently had occasion to evacuate with a needle. If this is not done it accumulates and presses the retina before it, produces an absorption of the vitreous humour, and gathers the retina into a cord, which, stretching from the entrance of the optic nerve to behind the lens, is seen through the pupil, looking like a deep-seated cataract, or the advancing tumour of fungus

hæmatodes. The visible arteries of the sclerotica are much enlarged, and ramify over the distended portion. Not unfrequently there is a patch of redness near the cornea, fed by one or more of these arteries greatly dilated. Sometimes the redness is confined to the upper part of the eyeball; there is scarcely ever any general redness.

The iris is not affected, but the pupil in almost every case undergoes a remarkable change of place. The iris is always narrowed towards the affected portion of the choroid, often the pupil is almost directly behind the edge of the cornea; it is most frequently displaced upwards, and upwards and outwards. Occasionally it continues small and immoveable, in other cases it is immoveable, but not dilated: in very severe cases it is greatly enlarged, the iris having nearly disappeared at that part of its circumference towards which the displacement of the pupil has happened. The pupil does not return to its place, even though the choroiditis is subdued. Opacity of the cornea, generally the edge nearest to the portion of affected choroid, is a frequent attendant on choroiditis. In other cases there are pretty extensive, but very irregular spots of whiteness. In some severe and old cases the cornea becomes almost altogether opaque, and, partaking in the staphylomatous degeneration of the neighbouring sclerotica, even undergoes a degree of dilatation. From this affection of the cornea alone vision may be almost or altogether lost.

In consequence of choroiditis the eye may enlarge, and even protrude considerably from the orbit, when it is liable to suffer from external inflammation. If this inflammation runs high the conjunctiva becomes chemosed, puriform fluid is deposited behind the cornea or between its lamellæ, the eye bursts, continues to swell and protrude, assumes a fungous appearance, bleeds profusely, and produces such pain and deformity as to require extirpation.

Intolerance of light and epiphora are generally considerable. The pain varies much in different individuals. When the sclerotica is much distended, especially when suddenly so, there is much increase of redness, and severe, sometimes furious pain. Hemicrania is present, not strictly circum-orbital or nocturnal. Vision is variously affected. Dimness of sight is sometimes the first symptom, or hemiopia, all objects to one or other side of a perpendicular line, or above or below a horizontal line appearing dim, or all objects appearing confusedly and as if double, even when viewed with one eye. Total blindness may ensue when the choroid seems only partially affected, or a good share of vision may be retained when the whole choroid is evidently affected.

Constitutional Symptoms. The subjects of the disease are adults only, and chiefly those of strumous constitution. In the early stage of the disease, before distention brings on acute pain, the pulse is not affected; after the patient has suffered much, a cachectic state is apt to follow, with quick pulse, pale or sallow complexion, great irritability, and general weakness. The digestive organs are frequently much deranged, even from the very first.

Remote and exciting Causes. Want of exercise and of the open air—derangement of the stomach and bowels—over-use of the eyes in reading,

sewing, &c.—exposure to too much heat and light, especially to the glare of hot fires, and to sudden changes from heat to cold—blows upon the eye.

Prognosis. Recovery is always slow, and if the disease has gone to any considerable length, it is scarcely ever complete, the vestiges being generally permanent, although the progress has been fairly checked. In many cases we are lucky if we arrest the disease, yet sometimes the cure proceeds to a degree beyond our expectation. Mr. Mackenzie gives a case in illustration of what we can sometimes effect.

Treatment. Profuse and repeated blood-letting is of the utmost importance in the early stage of choroiditis. A person not acquainted with the nature of the disease might be tempted, from the little appearance of inflammation, to apply merely a few leeches, when he should be opening the temporal artery, and removing a large quantity of blood. Mr. Mackenzie has known the blueness and distention of the sclerotica, which had continued unabated by leeches and other remedies, for many weeks, disappear suddenly and completely after the loss of twenty or thirty ounces of blood from the temple. Bleeding from the jugular vein, or from the arm is highly useful; and so is the application, every second day, of twenty-four or more leeches round the eye. In chronic cases we must not neglect the free and frequent use of leeches. Purgatives are of great service—calomel, as a cholagogue, followed by salts and senna should be repeated frequently during the treatment. We might naturally expect that mercury would be beneficial here, as in iritis, but Mr. Mackenzie, who has used it in all forms and doses, has not hitherto found much advantage from its employment. He still prescribes it because he has seen too few cases to enable him to pronounce definitively on its value, and because it does good in all other chronic inflammations of the eye. Turpentine has been lately tried by our author, but he has come to no conclusion respecting its efficacy. In one case, in which Mr. Mackenzie had made up his mind to extirpate the eye, it shrunk considerably under the use of iodine, while the sclerotica assumed much more of its natural whiteness. After due depletion, Mr. M. has seen great good from the precipitated carbonate of iron and sulphate of quina. Counter-irritation, best obtained by a tartar-emetic eruption between the shoulders, is very useful. Puncturing the sclerotica and choroid, so as to evacuate the aqueous fluid collected between the latter tunic and the retina, is of much importance in the chronic stage of the disease, for Mr. Mackenzie has not ventured to try it in the acute. The operation is performed by thrusting a broad cataract-needle to the depth of an eighth of an inch, not in the direction of the lens, but towards the centre of the vitreous humor. The operation gives great relief, and may be repeated every eight days, or at longer intervals, according to the state of the eye.

VI. RETINITIS.

“It is easy to understand that the internal inflammation of the eye may arise sometimes in one texture, and at other times in another; that in one case the blood vessels of the retina shall be first affected, in another, those of the choroid, in a third, those of the iris. The point of origination will depend on the natural constitution of the organ, and the manner of action of the exciting cause. Even from birth, the eye varies much in different

individuals, one or other texture appearing to be congenitally weaker or stronger than the others; so that the same exciting cause, operating on a number of persons, shall produce in one, inflammation of the conjunctiva; in another, scleritis; in a third, iritis; in a fourth, inflammation of the retina. On the other hand, the nature of the cause leads in one case to external, in another, to internal ophthalmia. Cold, operating on the eye, will bring on inflammation of the conjunctiva or scleritica, while the sudden and direct reflection of a strong light into the eye will be apt to produce an inflammation of which the retina is likely to be the focus. The inflammatory action, however, is seldom, if ever confined to the part first affected. We have already seen how inflammation, originating in the iris, spreads to the scleritica, and to the choroid; and how choroiditis affects the textures both within and without the choroid. In the same way, inflammation commencing in the retina is likely to spread inwards to the vitreous humour, to the capsule of the lens, and to the lens itself, all which parts are fed by branches from the central artery of the retina; and outwards, to the choroid and iris, to the scleritica and cornea, and to the conjunctiva. Thus an inflammation of the whole eyeball may arise from a very limited point of origin.

Nor is this a fanciful picture of disease. Although a retinitis, ending in general ophthalmitis, and arising from causes of very limited and transient action, is rare; yet it occasionally occurs, especially after long continued straining of the sight in the examination of very small, perhaps microscopical objects, under a strong light, reflected into the eye, either immediately from the object of examination, or from a speculum.

In such cases, however, there are commonly certain predisposing causes, which ought not to escape observation; such as plethora in and near the organ of vision.

Unexpected and vivid flashes of lightning sometimes excite inflammation of the retina, and this disease has frequently been excited by imprudently viewing an eclipse of the sun. Prisoners, who have been long confined to the darkness of a dungeon, have been seized with inflammation of the retina on being brought suddenly forth into the full glare of day. Travelling over a long tract of country covered with snow, has been known to produce the same effect. Saint-Yves notices the case of a man who became blind in consequence of going too close to the light and the heat of a strong fire, in attempting to tie a string to a fowl, turning on the spit; and another, of a workman in the mint, who lost his sight from the brilliant flashing to which he was exposed, while pouring metal into a red-hot crucible. Both of these accidents were probably owing to retinitis.

The esquimaux, who inhabit Hudson's Bay, are well aware of the loss of vision which arises from exposing the eyes to the constant view of a country covered with snow. They make use of a kind of preservers, which they term snow-eyes. These consist of two pieces of wood or ivory, so formed as to fit the eyes, which they completely cover, and are fastened behind the head. Each piece presents a narrow slit, through which every thing is distinctly seen. This invention preserves them from the snow-blindness, which is apt to be occasioned by the strong reflection of the sun's rays; and which, it is probable, is the effect of inflammation excited in the retina.*

Blinding persons by producing retinitis was, and still is, in some countries, a mode of punishment. The person is compelled to look steadily on a concave mirror of polished steel, held opposite to the sun. This would excite speedy inflammation of the retina, and

* "These instruments also increase the powers of vision, so that the Esquimaux are so accustomed to their use, that when they are desirous of viewing any thing at a distance, they mechanically apply them to their eyes. Different accounts are given of the slit or slits in these instruments, for some tell us there is only one in each eye-piece, and that it is long and narrow, while others say that there are two, about a quarter of an inch long. This is probably regulated by the fancy of the wearer."

certainly end in a greater or less degree of insensibility to light. Some such method must be employed in India at this day, as many of the native princes, who have been condemned to the loss of sight by the jealousy of their rivals, but are suffered to live in a state of captivity, are said to have no appearance, at a little distance, of being blind."

Chronic cases of retinitis are not unfrequent, under the designation of weakness of sight ; there are morbid sensibility to light and slight obscurity of vision, followed by gradual contraction of the pupil, immobility of the iris, and amaurosis. Watchmakers, jewellers, and those who spend much time in reading and writing are liable to be affected. Stimulant and tonic treatment is injurious ; leeches round the eye beneficial. In strumous ophthalmia, it is conjunctivitis and not retinitis which causes the excessive intolerance of light.

Symptoms of Acute Retinitis. The patient first complains of a general feeling of pressure and tension of the whole eyeball, succeeded by obtuse, deep-seated, pulsative pain, which seems to increase every moment, and soon extends to the eyebrow and cranium. The power of vision is already sensibly diminished, and every hour becomes more and more feeble, the pupil has lost its glancing blackness, and has become much contracted. At last it completely closes, the iris having reached its greatest possible degree of expansion. Long before the pupil is closed, the sensibility of the retina seems extinct, and yet when the pupil has closed, the patient experiences a troublesome sensation of fiery spectra, with every oscillation of the internal blood-vessels of the eye. During these changes the iris becomes discoloured, greenish or reddish according to its original hue. The anterior chamber is strikingly diminished in size by the advance of the iris towards the cornea, during which the whole sclerotica is rose red. Some time after this the conjunctiva presents a pretty thick net-work of blood-vessels, and the cornea loses much of its natural lustre, without becoming absolutely opaque. Now there is severe inflammation, fever, with almost maddening headach. Sometimes, during this period of the disease, the pupil does not completely close, but it is cloudy, and on looking at it through a magnifying-glass, is seen to be reddish-grey, while the power of vision is totally lost. So severe are the fever and headach that retinitis is often mistaken for phrenitis. The pain of the eye now becomes unequal, and though still pulsative is attended with a feeling of cold and weight in the part. Shiverings take place, and suddenly there appears a quantity of pus gravitating to the bottom of the anterior chamber. It may accumulate to such a degree, especially in neglected cases, that the cornea projects and at last gives way under insufferable pain ; the eye then collapses, and the pain gradually subsides. If the pupil has not quite closed by the end of the first stage, we see, just where the hyopium begins, fine whitish filaments of lymph, shooting from the edge of the cornea towards its centre. Viewed through a good lens these have the appearance of a delicate cobweb. After the pus has covered the pupil and remained, perhaps, long unabsorbed, this pseudo-membrane becomes whitish-yellow, from little particles of the pus lodging in the interstices, and

sometimes a single piece of what seems to be thickened purulent matter, attached to this membrane, projects through the pupil, intimately connected with the pupillary edge of the iris. If the pupil has closed completely in the first stage this spurious cataract cannot, of course, be observed.

Prognosis. If proper treatment be commenced before the pupil is much contracted, the prognosis is not unfavourable; but if vision seems already extinguished, it is extremely unfavourable. If the pupil is once closed, even before the retina appears to have become insensible, there is no longer any hope of preserving sight; for even should the pupil re-open in some degree, yet it remains small and motionless, and the eye is still blind. If retinitis is neglected or mistreated in the commencement, it proceeds rapidly to a dangerous inflammation of the whole eyeball. In the second stage the prognosis is always bad, for before the disease has advanced so far, vision is irretrievably lost. All that can be done is to endeavour to save the form of the eye, by limiting the suppuration as much as possible. If the disease has gone on to a complete ophthalmitis, attended with chemosis, we may not even be able to do this.

Treatment. Complete rest of the eyes and of the whole body, darkness, abstinence, and active depletion, followed by the rapid introduction of mercury into the system, are the means to be depended upon in the first stage of retinitis. Copious blood-letting from the arm is to be immediately followed by a plentiful application of leeches round the eye. Should the pain of the eye and head still continue, the jugular vein or temporal artery ought to be opened, and a considerable quantity of blood abstracted.

Calomel with opium ought to be given in frequent doses, till the mouth is affected.

Belladonna is to be applied in the usual way.

In the second stage, the preservation of sight is out of the question. A warm emollient poultice is to be laid over the eyelids. If only a small quantity of matter be present in the anterior chamber, we must on no account let ourselves be induced by that to open the cornea, for the purpose of evacuating it; but trust to the sorbefacient effect of the mercury, assisted by blisters behind the ears or on the back of the neck. Beer recommends the eye in that state to be touched repeatedly in the course of the day with vinum opii, by the careful use of which, in combination with the internal employment of opium and sometimes of cinchona, he had seen collections of pus in the anterior chamber completely disappear. Should the hypopium increase, so that the anterior chamber is filled, we cannot trust to its absorption, but must give exit to the matter by opening the cornea with the extraction knife. In such circumstances, the natural appearance of the cornea and iris is completely lost, the eyeball sometimes remaining flattened in the situation of the cornea, while in the other cases it becomes staphylomatous." 470.

VII. AQUO-CAPSULITIS.

By this term is meant inflammation of the cartilaginous membrane lining the internal surface of the cornea. When inflamed it becomes more or less opaque, there is a muddiness in the anterior chamber, and occasionally an appearance as if the eye were unusually full and prominent, arising from an increase in the quantity of the aqueous humour. In more severe cases coagulable lymph is effused, and if the iris be inflamed at the same time,

this effusion may unite it with the cornea. Besides the diffused muddiness there are often present one or more milk-white spots on the internal surface of the cornea, giving it a mottled appearance, and forming the most characteristic mark. Mr. Wardrop has accurately described their more opaque central points as surrounded by a kind of disk, resembling what is called the eye of a pebble. In one of two cases in which Mr. Mackenzie distinctly observed this appearance, the spots appeared and disappeared at different points of the internal surface of the cornea even in the space of a few hours, so that the patient saw worse in the morning, when most of the spots were observed, and better towards evening, when those at the upper part of the cornea had greatly diminished. As in iritis, there is a circular zone of minute vessels seen on the anterior part of the sclerotica; sometimes one or more distinct blood-vessels are seen traversing the inflamed membrane; some vessels of the conjunctiva also are frequently enlarged, appearing as insulated trunks. The vessels on the white of the eye are of bright red colour, and gradually assume a more crimson hue, as the symptoms subside. Sometimes there is epiphora, but generally the patient suffers very little from exposure to light. Vision is more or less dim, and there is a particular sensation of fulness and distention of the eyeball, with dull aching pain, generally in the forehead, occasionally also in the back of the head; symptoms, which Mr. Wardrop avers to be instantly and permanently relieved by evacuating the aqueous humour.

The constitutional symptoms vary much in their degree of severity. Sometimes there is considerable pyrexia; in other cases, the disease assumes from the first a chronic form, and, after a certain period, participates in any peculiarity of the patient's constitution, and becomes thereby modified. During the inflammatory symptoms there is usually so much muddiness of the anterior chamber, that no distinct portions of lymph, unless of large size, can be distinguished. When the turbidness goes off, flakes of lymph may sometimes be perceived; at others, the whole surface of the inflamed membrane is covered by a thin layer of it. Sometimes the lymph floats like a thick cloud in the anterior chamber; in other cases it is deposited in streaks, of a reticulated appearance; in others, it resembles a purulent fluid. If the lymph is not afterwards absorbed it may become organized, and not unfrequently red vessels can be seen ramifying through it. This is more frequent than a red vessel or vessels running along the internal surface of the cornea without any effusion of lymph.

"Treatment. Little else is known regarding the effects of remedies in this rare ophthalmia, than what is mentioned by Mr. Wardrop, in his paper on Evacuation of the Aqueous Humour, in the fourth volume of the Medico-Chirurgical Transactions. In the cases there recorded, benefit appears to have been derived from cupping the temples, purging, fomenting, and the application of such stimulants as murias and nitras hydrargyri in solution, red precipitate salve, and sulphuric ether. Mr. Wardrop, however, places most reliance on the evacuation of the aqueous humour, stating that there is no inflammation of the eye, where so much benefit is derived from that operation, as when the disease affects the internal layer of the cornea. He had never found it fail in procuring immediate relief of the pain of the head, and instantaneous restoration of the transparency of the anterior chamber.

The opening through the cornea, by which the aqueous humour is to be discharged, may be made with any of the knives commonly used for extracting the cataract, or with a broad

iris-knife. It is sufficient that the point of the instrument be introduced so that it makes a puncture into the anterior chamber; this should be done near the junction of the cornea and sclerotica, at any part of the circumference. When the knife has penetrated into the anterior chamber, it may be withdrawn a little, and the blade turned on its axis, when the aqueous humour will readily escape. It is better not to remove the instrument altogether, till the fluid is observed to be discharged; for if the incision be not sufficiently large, and the knife taken away before the aqueous humour flows out, the elasticity of the cornea closes the wound, and either hinders the evacuation from being so sudden, and consequently so efficacious, or the closure of the wound entirely prevents its escape. The operation, therefore, which is necessary to discharge the aqueous humour, is merely the first step of the section of the cornea, made in extracting the cataract, or what is called the *punctation*.

The chief difficulty in performing the operation, arises from the pain occasioned by the necessary pressure on the eyeball, whilst keeping open the eyelids; but until a sufficient portion of the cornea is brought into view, and the movements of the eye completely under the management of the operator, the introduction of the knife should not be attempted. The upper lid should be elevated by the fingers of the assistant, or by Pellier's speculum; while the operator, with the fore and middle fingers of the hand which does not hold the knife presses down the lower lid, and applies their points over its edge, in such a manner that they touch the eyeball, and can apply any degree of pressure upon it which may be necessary. After the assistant raises the upper lid, the patient should be directed to look downwards; and then the assistant employs a sufficient pressure, to keep the eye in that position.

The operator now makes the puncture; but as the patient is very apt to start when he first finds the instrument coming in contact with his eye, it is useful merely to touch the cornea repeatedly with the back of the knife till all risk of starting is over; and as soon as its extremity rests on the part where the puncture is to be made, the knife may readily be raised on its point, and thrust into the anterior chamber.*

It is probable that a variety of other remedies besides those mentioned by Mr. Wardrop might be useful in aquo-capsulitis; especially cinchona, turpentine, and mercury. Of these, however, nothing can be said from experience." 473.

VIII. INFLAMMATION OF THE CRYSTALLINE LENS AND CAPSULE.

Common lenticular cataract appears to be a consequence of the impeded nutrition of advanced life, whilst opacities of the capsule are probably always the result of inflammation. Capsular and capsulo-lenticular cataracts are rarely seen till the inflammation has subsided, but Mr. M. confirms the accuracy of Professor Walther's description.

Inflammation of the capsule generally occurs about the middle of life, and in slightly cachectic subjects, but our author has more than once seen it in young children. It occurs oftener in light eyes than dark, and the iris becomes a little darker, the pupil somewhat oval or irregular. The motions of the iris are at first free, but subsequently sluggish and very limited. The pupil is smaller than natural, and there is usually a black rim of irregular breadth round its edge, arising from the pigmentum nigrum of the posterior surface of the iris coming into view. Along with these symptoms, a number of red vessels appear in the pupil itself, the largest of which are visible

* "Medico-Chirurgical Transactions, Vol. iv. p. 153, London, 1813

to the naked eye, but the majority are only discernible by the aid of a magnifying glass. This should be of short focus, and to have the pupil as large as possible, the other should be closed during the examination, and a little of a filtered solution of extract of belladonna dropped on the affected one an hour previously.

The red vessels observed in the pupil always form a sort of vascular wreath, situated about a quarter of a line's distance from the pupillary edge of the iris ; this wreath forms a concentric circle within the pupil, and consists of a number of vascular arches. To it numerous vessels run in a radiated form from the circumference of the capsule ; others, but not always, seem to extend from the pigmentum of the iris ; in other cases, vessels seem to be prolonged from the capsule into the posterior surface of the iris. Those running from the iris to the capsule, always arise at a little distance from the edge of the pupil, on the posterior surface of the iris, so that nearly a line's breadth next the pupillary edge is free from these vascular sproutings. From the vascular wreath, vessels are seen spreading towards the centre of the anterior capsule, again forming clusters and arches. No doubt all the vessels at different parts of the capsule are continuous. Posterior to the red vessels seen in the capsule, there appears in some cases a net-work of more delicate vessels, which seem to be seated in the lens itself. The larger evidently come, says Professor Walther, from its posterior surface directly forwards, and then divide into branches. He has repeatedly seen these vessels in the lens, and they constitute a very beautiful phenomenon. He thinks that their existence is morbid. It would appear that all inflammations of the lens begin in the capsule, a fact which Professor W. considers as analogous to the spread of inflammation to the capsule from the ciliary processes or from the iris.

At the apparent termination of several of the vessels in the capsule there are distinctly perceived little knots of a whitish grey semi-transparent substance, evidently coagulable lymph, and explaining the manner [in which opacities of these parts are formed. The anterior hemisphere of the capsule, where the vessels are very numerous, sometimes assumes a peculiar velvety or flocculent appearance, and in one or more spots of its extent presents a grey or brownish colour. These brownish spots appear in some instances to be merely effused lymph ; but in other cases they probably owe their origin to the iris having been united to the capsule by partial adhesions, which being separated in one way or other, part of the pigment of the iris has remained adherent to the anterior surface of the capsule.

Where inflammation of the lens and capsule is severe, vision is indistinct and confused, particularly when the eye is directed towards distant objects ; those nearer are seen as through a fine gauze which does not seem red, nor are the objects tinged so. This ophthalmia is always chronic, proceeding slowly, and attended with little pain. When this does exist it is seated at the bottom of the orbit, in the forehead, or in the crown of the head. When the disease has continued long the blood-vessels in the lens and capsule becomes varicose, and permanently remain so. In one case Mr. M. has seen incomplete amaurosis, with tremulous iris, follow this disease. Effusion of fluid between the lens and capsule, and dissolution of the former are not unfrequent consequences ; and, in other instances, the inflammation appears to run on to suppuration, for in the variety of cataract called the *catarac-*

ta cum bursa the opaque state of the lens and capsule is combined with a cyst contained within the capsule and filled with pus. The causes of this ophthalmia have not been sufficiently investigated; in one case Mr. Mackenzie observed it in the right eye of a keen sportsman. Inflammation of the lens and capsule approaches nearer to iritis than any other ophthalmia, but is much less severe and much less under the influence of treatment.

In the early stage of the disease depletion, counter-irritation, and alteratives seem indicated, in the latter stages tonics. With our author, this has proved the most obstinate of ophthalmiæ, even mercury appearing to have scarcely any power.

IX. INFLAMMATION OF THE HYALOID MEMBRANE.

Though the morbid states with which we meet in the vitreous humour naturally give rise to the supposition, that its investing membrane must occasionally suffer from inflammation, and though other considerations would lead to the same conclusions, yet such inflammation has not been observed with sufficient accuracy to warrant description.

X. TRAUMATIC OPHTHALMIÆ.

Each texture of the eye has been shewn to suffer in its own way from inflammation, excited without any mechanical or chemical injury. The inflammation, on the other hand, excited by such injury, may attack one or several of the textures of the eye; when thus excited the ophthalmia imitates the ophthalmiæ already described. Traumatic iritis very closely resembles the rheumatic; the cornea, by traumatic inflammation, is rendered opaque, or becomes affected with onyx or with ulceration; and so on. Upon this hint we may act in our treatment; traumatic iritis, for instance, is to be treated exactly as the syphilitic or rheumatic; puriform traumatic inflammation of the conjunctiva, precisely like catarrhal ophthalmia. The consideration of the former varieties of ophthalmia will teach us to understand perfectly the effects of mechanical and chemical injuries, and though the symptoms may vary very greatly in severity, yet the inflammation of each texture presents, under whatever circumstances, the same essential phenomena.

The most important general rule in the treatment of the traumatic ophthalmiæ is, that we should be upon our guard against effects that may be produced, but are not yet present, and against effects implicating the interior structure of the organ, though the injury seems to be superficial. Our treatment must be preventive; we must not wait till severe scleritis sets in, but bleed from the moment of a severe injury—nor till the pupil is evidently closing, but apply belladonna to prevent it—nor till the iris grows discoloured or lymph is effused into the pupil, but put the patient on calomel and opium, if we apprehend from the nature of the injury that iritis is likely to ensue. We sometimes meet with severe sympathetic inflammation in the eye which has not received the injury. It must be observed that, after all the other symptoms of severe traumatic inflammation of the eye have been removed by depletion, &c. a very troublesome and obstinate intolerance of light, with epiphora, is apt to remain, apparently

from continued and now habitual excessive activity in the lids and lachrymal gland. In such cases, in addition to the usual remedies for epiphora, Mr. Mackenzie has derived advantage from the internal use of the extract of stramonium.

XI. COMPOUND OPTHALMIÆ.

Strictly speaking, few ophthalmiæ are absolutely simple. Many are strikingly compound, as the catarrho-rheumatic. Strumo-catarrhal ophthalmia is also very common; and we find phlyctenular conjunctivitis with strumous iritis, strumous corneitis with iritis, and many other compound ophthalmiæ. The treatment of such cases will of course consist in the combined use of the means adapted to the separate or simple ophthalmiæ. Thus, in strumo-catarrhal cases, we require the treatment necessary for strumous ophthalmia in combination with that for catarrhal conjunctivitis, and so on.

XII. INTERMITTENT OPTHALMIÆ.

"Although several interesting cases have been recorded of ophthalmia recurring in the same individual after longer or shorter intervals of time, yet I doubt whether there is sufficient ground to admit the existence of any disease of this kind so regularly periodic in its accession, as to warrant the appellation of *intermittent ophthalmia*. The pain which attends many of the ophthalmiæ, is undoubtedly subject to regular nocturnal exacerbations, but this does not entitle these diseases to the appellation of intermittent. By an intermittent or periodical ophthalmia, I should understand one which recurred with considerable regularity at intervals of weeks or months, and apparently not from accident, but from concatenation with the revolutions of time; whereas, if we examine the cases which are recorded as being of this kind, we shall find that they are nothing more than instances of some particular ophthalmia recurring more or less frequently in the same individual, in consequence of his repeatedly exposing himself to the same, or to some similar exciting cause. The strumous ophthalmia, being that which is most apt to be renewed on slight exposures, will also more frequently than any other inflammatory disease of the eye appear to be periodic. The rheumatic, catarrho-rheumatic, and catarrhal will also be subject, from their ready occurrence in eyes once affected with them, to the same suspicion. I have frequently treated patients who at intervals of three or four months, or once a year nearly about the same season for several successive years, had suffered an attack of rheumatic iritis; but in every case of this kind, I have been able to trace the return of the disease to some new imprudence. In arthritic inflammation of the eyes, the periodic tendency will also appear to be very decided, for every attack of that sort leaves the eyes worse than before, and with a strong disposition to suffer again from renewed causes of excitement.

These remarks, will, I think, be confirmed by a careful perusal of the interesting narratives of Dr. Curry and Dr. Bostock, both of whom had suffered from repeated attacks of severe ophthalmiæ." 481.

We have now arrived at the limits which we proposed to ourselves at the commencement of this article. The subject of the ophthalmiæ is concluded, and though Mr. Mackenzie proceeds in his next chapter to consider the diseases consequent on the ophthalmiæ, we cannot follow him at present. We have been careful to give Mr. Mackenzie's sentiments on the affections rescribed in this and the preceding article, precisely yet fully; for, as we before remarked, there is scarcely a practitioner who will not, at some time or other, and with more or less frequency, be called upon to

treat them. We need scarcely remark how serious the consequences of ignorance may be, not only to the patient but to the practitioner himself. It is because this subject is one of such general, such vital importance, that we have dwelt on it so long. We have offered no critical remarks, for our object has been to communicate the opinions and practice of an experienced ophthalmologist to those who stand in need of such information, and whose *res angusta domi*, will not permit them to purchase the work itself. We do not imagine that Mr. Mackenzie is right on all points: were he so he would be little less than a phenomenon. Neither do we consider his book a vast fund of originality, in which every page is redolent with discoveries. A great part of its contents, nay, by far the greater part, will be found in other authors on the Diseases of the Eye, in the highly valuable volumes of Travers, Saunders, Guthrie, Lawrence, &c. But the divisions of ophthalmic surgery are arranged with more precision, and the doctrines laid down with more method and order in this than in most other works; and as it suits our purpose we make use of it. From time to time and on various occasions we shall select separate chapters or sections for analysis. We again conclude by recommending all who can afford it to purchase this very useful treatise.

VII.

OUTLINES OF PHYSIOLOGY, WITH AN APPENDIX, CONTAINING HEADS OF LECTURES ON PATHOLOGY AND THERAPEUTICS. By W. P. Alison, M. D., Professor of the Institutes of Medicine in the University of Edinburgh. 8vo. pp. 452. Blackwood, Edinburgh, and Cadell, London, 1831.

In taking up this work, we trust that neither the author nor the reader will anticipate, that we propose bringing before the one the substance of an elementary treatise on physiology, or that it is our intention to scrutinize, with the minuteness of very detailed criticism, the claims of the other to the merits of an able and advantageous performance. We are sick and sorry when we say it, but physiology in any form is among the least vendible articles which we take to market in these miserly days of greedy money-making, and although we might be discharging a wholesome and honourable duty, were we to stop and reason with our readers upon their shameful indifference to physiological discoveries and physiological discoverers, yet if it be true, as we believe it is, that all our reasoning on this subject would be utterly lost upon nine-tenths of those whom we address, we must feel it to be more imperatively our duty, both as regards them and ourselves, not to enter into any dispute upon the matter. The day is fast coming, when a knowledge of physiology will be considered somewhat more substantial than an ornamental fringe in the texture of a physician's education, and when to be able to discover and to remedy deranged function will be considered as indispensable, as to detect and renovate impaired structure; but at present we fear that we must suffer the *amor nummi*, which is so epidemically prev-

alent, to subside, ere we can raise our voice to any very audible elevation in behalf of one of the most useful, yet one of the least cultivated sciences in medicine. He, who is determined to learn nothing which cannot directly increase his revenue, will not be very likely to hearken to our admonitions, and he, who can study physiology on its own account, does not require them; so that in passing on without further preface to the work before us, we shall not defraud the former by declining to advise where exhortation would not be received, and we may please the latter by not attempting to tender advice where it is felt to be unnecessary.

These outlines of Physiology contain eighteen sections, to which is added an appendix comprehending lectures on pathology and therapeutics, which, it appears, are to constitute the ground-work of another volume. The first eleven sections are devoted to the grand nutritive functions of organic life; and in the remaining seven, which engross nearly half the book, are considered the more purely animal and metaphysical faculties. In a few important preliminary observations, with which he prefaces his description of the "laws of vital contractions," the Dr. observes—

"As the phenomena of life are seen only in bodies more or less organized, it has been conjectured that they depend merely on organization; but when we inquire how organization has been effected, we find that it implies in every instance, where we can observe it, the previous existence of vitality; and therefore must be regarded as one of its effects, not as its cause.

On the other hand, the supposition entertained by others, of a *material substance*, such as an ethereal or subtle fluid, superadded to organization during life, and producing the phenomena of life, is both unsupported by evidence, and useless in the explanation of facts.

Setting aside both these hypotheses, we hold that all physiological inquiries are intended only to ascertain the conditions, under which the various phenomena of Life take place, and naturally terminate in a reference to certain *Laws of Vitality*, or ultimate facts in this department of nature; just as the investigation and explanation of phenomena in the inanimate world terminate in a reference to certain *Laws of Motion*, of *Gravitation*, of *Chemical Affinity*, &c. Of such first principles in science we can give no other account, than that they depend on the will of the *AUTHOR OF NATURE*; but the determination of such first principles is the main object, and the applications of them constitute the details, of all sciences; and every science is thus mainly conversant with principles *peculiar to itself*." 4.

This distinction between vitality, as the cause of organization and not its effect, has been sadly overlooked, and the oversight has led many physiologists into errors of the most serious description. It is true that we can know little if any thing of life, and therefore it may be vain to study it. Its phenomena are palpable, but its essence is veiled in mystery. Its operations are intelligible, but its seat and essence are utterly unknown. All this, no doubt, is true, and it is to be feared that the very admission of these facts has encouraged some into the suspicion, that life is a mere congregation of phenomena—the sum of certain vital processes—a mere name—a concise and convenient term whereby to express an assemblage of ascertained and acknowledged circumstances. Such physiologists deny its entity. They call it nothing. They hold that in the strict language of philosophy it is a phantom, a fancy, a creature of convenience, and that we have no reason for thinking otherwise, until forsooth our dissection-knife have revealed to us

its texture, and until we can measure and weigh and handle it as we do any other piece of material substance.

Now, it may be philosophy, which cautions us not to dare to be wise beyond what is certainly known; but it is incredulity, which prevents us from believing all that is clearly demonstrated; and we have just as much evidence of the entity of life, as we have of soul, or of spirit, or of any other agent, whose existence is known only through the medium of its operations. It is life, which deposits, organizes and supports the constituent textures of the animal frame; it is not the constituent textures of the animal frame which generate life. Brain and nerve, blood-vessel and muscle are secreted under the agency of life, are organized by the power of life, and are renovated when impaired by the pure instrumentality of life. No animal process can commence in the fœtus, or continue in the adult without the operation of this active principle; and it is a sad confusion of all etiological relations, which ascribes to the passive and naked effect the very existence of the agent, to which this effect owes its being. Life is antecedent to organization, and organization when properly understood implies its pre-existence. Life generates life, and although organization is found in inseparable connexion with life in the present state of being, we see no necessary brotherhood between them, for it is not only conceivable but probable, that life exists without organization, although organization cannot exist without life. While, therefore, it may be philosophy to predicate nothing of life as an independent entity, because, never having seen it separate from matter, we know nothing of it in the abstract; it is neither philosophical nor courageous to permit this fear of knowing too much to keep us ignorant of every thing, and because we are unable to analyze the vital principle with the precision of a chemical result, to dismiss the subject from consideration by denying it existence altogether.

“The explanation of many of the phenomena of living animals is still very imperfect: but enough has been done to shew, that the principal laws regulating these phenomena must be ranked under three heads: 1. Those of *Vital Contractions*, by which the visible movements of living animals are chiefly effected: 2. Those of *Vital Affinities*, by which the chemical changes peculiar to living animals are determined, and their physical structure maintained: 3. Those of *Nervous Actions*, by which the physical changes in living animals are placed in connexion with Mental phenomena, and subjected to the control of Mental acts.

Of these, the vital affinities are perhaps the most general and the most fundamental; but they are the least understood, and, in the higher animals at least, their exercise is dependent on internal and vital contractions; and the laws of these contractions are, therefore, properly to be considered first.” 5.

Our author's views upon the connexion, which is supposed to exist between muscular action and nervous energy, although not solitary, are somewhat peculiar. It is well known that, according to some, muscular fibre depends for its faculty of contraction upon some influence derived from the brain and spinal cord; while it is maintained by others that, although muscle does not derive this power from nervous energy, yet it is so far dependent on it for the existence and exercise of this faculty, that all stimuli, which excite muscular fibre to contraction, act upon it through the nervous filaments with which it is supplied. The Professor strongly opposes both these views, and the arguments upon which he rests his opposition, it must be admitted, are

neither few nor feeble. In contradiction to the first doctrine he contends, that contractility is found in vegetable and in the lowest tribes of animal life, where no traces of a nervous system are discoverable ;—that children have been born without brain or spinal cord, and yet their muscular system was in undiminished possession of this contractile power ;—that circulation can be continued in warm-blooded animals after both the brain and spinal cord are destroyed, by keeping up an artificial action within the lungs ;—that after the nerves, which supply voluntary muscles, are divided, although the operation relieves such muscles from their subjection to the will, yet they may afterwards be made to contract by applying stimuli to themselves, and contractions may be excited as long in such muscles as in those, whose communication with the brain and cord is entire ; and, lastly, that neither the heart, nor any other strictly involuntary muscle, can be deprived of its contractility by cutting the nerves which immediately supply them. Such are the Doctor's leading objections against the first view. His objections to the second we shall give in his own terms :—

"To the *second* of the theories above stated, it appears a sufficient objection to state, that our only reason for supposing an intervention of nerves to be concerned in muscular contraction, is the excitation of that contraction by stimuli applied to nerves. But a conclusion which is rested on this fact, must be limited to the cases in which this fact holds good. Now, there are *many muscles* (viz. all or almost all those that are destined to *involuntary motion* only), which, although exceedingly irritable, *are not excitable by mechanical irritation of their nerves*. Even Galvanism, applied exclusively to the nerves of these muscles, has generally failed to excite them ; and in the instances where galvanism, so applied, has had some effect, it appears probable that the nerves acted only as conductors of the galvanism to the muscular fibres themselves. When experience shews, that some muscles are excitable by irritation of their nerves, and others not, we cannot acquiesce in the proposition that nerves furnish a condition essential to the irritation and vital action of muscles in general.

We must therefore set aside both the hypotheses above mentioned ; and in so doing, we necessarily limit the meaning of the terms 'Nervous Energy, Nervous Influence, Innervation,' &c. in reference to the connexion of vital movements with nerves, to a degree, of which many of those who use these terms do not seem to be aware.

It remains that, on this point, we acquiesce in the judgment of HALLER,* as the only generalization yet admissible, of the facts known in regard to it, viz. That the *vital power of Muscles is inherent in themselves*, and in no case dependent on Nerves ; but it is liable to affection in two distinct ways, by changes in certain parts of the nervous system, whether these are produced by physical or mental causes ;—being *directly excited in many muscles*, and *increased or diminished, or variously altered, probably in all muscles*, by such changes." 15.

We have always considered the experiments of Wilson Philip, and of those physiologists who have endeavoured to establish the independence of the blood-vessel upon the nervous system, as obnoxious to one common objection, which has been seldom if at all sufficiently urged. When they have separated the heart from its nerves, and removed it from the body, they have imagined that, because its auricles and ventricles have continued to act for some time, the muscular tissue of this organ is endowed with a

* "See particularly Elem. Physiol. lib. 17, sec. 2, § 7."

vis insita, peculiar to itself, to which it is indebted for its power of contraction. But, without attempting to give either a name or a nature to the nervous energy; without calling it a fluid, or prescribing any specific limits beyond which it may cease to operate, is it not natural to imagine, that if it exercise any influence whatever upon the circulating system, that influence must be more fixed and permanent than to be instantaneously annihilated by any experiment, which does not annihilate the nervous system itself? When the heart of a living animal is removed from the body, the operation does not separate this organ from the supply of nervous influence which it is supposed to have contained before the separation was effected;—it only cuts it off from the source and continuance of this supply. The nervous influence, which it *has* received and which it *does* contain, is not annihilated by the experiment, and therefore until this supply shall have been exhausted by the activity of the organ, and until it can be shewn that this activity continues to exist *after* the period of this exhaustion has been completed, it should not be said that the heart can act without nerves, or is independent of the nervous system. After the heart is removed from the body the capillary arteries continue to propel their contents into the veins, the lacteal and lymphatics carry onwards to the heart their nutrient current, muscular fibre contracts and oscillates for a considerable period, and every part of the frame, which is endowed with a moderate share of sensibility, not only answers for a time to the application of stimuli, but continues to exhibit some of the properties of life, or, as the Doctor would say, “vital contractility” after the general system has expired. All this proves—not that the capillary arteries and absorbents and muscles can discharge their respective functions without nerves—but that the nervous influence—whatever it may be—with which these textures are supplied, operates within them for some time after apparent death, and endows them as it were with a *post-vitam* existence of their own. What seems to us to go far in confirmation of this view is the fact, that this excitability survives the general extinction of life for a very short period in any case; that after death by lightning this excitability is simultaneously and equally destroyed with every other animal function; and that it may be almost instantly exhausted by applying to the excited texture electricity, galvanism, or such other active stimuli, as are known strongly to excite and rapidly to exhaust nervous energy.

That muscular texture possesses a *vis insita* peculiar to itself, is, we think, extremely problematical. It is no argument to the contrary to maintain that vegetables are endowed with contractility, although we cannot discover in their composition nervous tissue; nor that the lower tribes of animals exhibit mature and contractile power, without any ascertained supply of nerves. The lacteals existed in man from the days of Adam till the time of Acellius, yet they remained undiscovered; and until Rudbeck demonstrated the lymphatics at a still later period, that extensive and important system of vessels was utterly unknown. Shall we say, then, that in any animal system, exhibiting muscular fibre, blood-vessels, contractility and motion, there are no nerves, merely because we cannot see them; or that in the *mimosa sensitiva*, which betrays as much irritability of temperament as the most delicate and nervous constitution, its sensibility and contractile power are wholly independent of every thing like nervous influence? Any argument drawn from this source is purely negative, being no more than an *argumentum ad igno-*

ranliam, and when we consider the extreme darkness in which we are upon points of the greatest interest in physiology, we can build no very enduring opposition to one theory on the basis of another, which is supported not by what we know, but by what we do not know.

The two original objections, which were advanced against the doctrine which we are now considering in the days of Haller—that the heart sympathizes with emotions of the mind, and is abundantly supplied with nerves issuing from more sources than one—possess the same cogency at the present hour which they had at first, and, although the amount of our information upon this point may not entitle us to specify the precise limits of connexion, which obtain between the nervous and blood-vessel systems, still that there is connexion and one of considerable intimacy, many facts and very many phenomena conspire to prove. The great difficulty in this question—with us at least—is clearly to ascertain that department of the nervous system, which more immediately influences the heart and arteries, and the exact extent to which this influence operates. There is reason to believe that the heart exists in the foetus prior to the brain, and that the majority of the arteries are deposited before this spinal marrow can be discovered. If this be so, the heart and arteries should be more immediately connected with the ganglionic system, and all our far-famed experiments upon the brain and the spinal cord—our slicing and pithing and pricking and singeing these organs—to ascertain what effects such treatment might produce upon the action of the heart, must go for nothing, being directed towards the wrong quarter. The heart we know is one of the principal muscles of the organic life, and *a priori* it were reasonable to imagine that its nerves would be principally derived from that system which mainly supplies the organs of interior life; and if the pre-existence of the heart and arteries can be fully established, the circulation must be greatly independent of this system, and so far the school of physiologists, to which Dr. Alison pertains, may be borne out in their opinions. The experiments of Le Gallois, no doubt, prove sufficiently clearly that the heart can act for a considerable time after the brain has been destroyed; and Wilson Philip's experiments also prove, that both the brain and spinal marrow may be broken down and scorched with a hot wire, and yet the heart's action continue, provided artificial respiration be established; but the ganglionic system still remains to be considered, and we suspect that the important fact will soon be established, that the heart's life, motion and energy depend immediately, if not exclusively, on nerves belonging to the ganglionic or organic system. Brachet, in his late admirable work upon the functions of the ganglionic system, has, in our opinion, done much to settle this point; but as a more special and a fitter opportunity will, probably, soon offer to the writer of these remarks for entering it with more minuteness into this highly interesting subject, we shall decline to add to the few general observations, which have been thrown out, *en passant*, in noticing this portion of the Professor's Outlines.

It is now, we believe, very generally admitted, that absorption is not exclusively performed by lacteals and lymphatics; but that this function is at least occasionally exercised by capillary veins. Dr. Alison strongly advocates this extra faculty of the venous capillaries.

“The experiments of HUNTER, made by exposing and isolating small portions of the

intestines of living animals, filling them with different fluids, chiefly milk and a solution of indigo, and then examining the contents of the lacteals, and of the veins leading from these, may be allowed to prove two points: 1st, That absorption, at least of milk, and probably of other fluids, different from chyle, took place in his trials by the lacteals; 2dly, That no absorption could be ascertained, in his trials, to have taken place by the veins.

The first of these, which is a positive observation, although opposed to the results obtained by MAGENDIE and others, agrees with the results of many other experiments, by LISTER, HALLER, BLUMENBACH, TIEDEMANN and GMELIN, LAWRENCE and COATES, and FODERA, in which it appeared that a certain portion of different fluids, introduced into the intestines, was taken up by the lacteals; and the possibility of their absorbing fluids different from chyle may, therefore, be held to be decided. But the second observation of Mr. Hunter, which is a negative one, is quite an insufficient ground for the general conclusion, that veins do not absorb; and the reality of venous absorption is now put beyond all doubt, by the positive observation of many physiologists, particularly by the following.

1. The experiments of Sir E. HOME and Mr. BRODIE* prove, that when the great lymphatic trunks are tied in warm-blooded animals, substances injected into the stomach quickly find their way into the circulation, and may be detected in the urine.

2. Experiments made by MAGENDIE, FLANDRIN, TIEDEMANN and GMELIN, and others, prove that odoriferous substances, known by their smell, and saline substances, indicated by their tests, after being taken into the stomach, are detected in the veins on the mesentery, both larger and smaller, and in the vena portæ, much more than in the lacteals and thoracic duct.

3. Experiments made by MAGENDIE, prove that a poison introduced into an isolated portion of intestine, communicating with the rest of the body only by an artery and vein, or into the cellular texture of a similar isolated limb, acts in the usual way, and nearly in the usual time, when the circulation is free.

4. In experiments made by SEGALAS, it appeared that a poison introduced into a portion of intestine between two ligatures, failed of effect as long as the artery and vein leading to that portion were tied, although the lacteals and other textures were uninjured, but took effect as soon as the circulation was set free.†

5. In experiments made by Professor MAYER, it appeared that saline substances introduced in small quantity into the bronchiæ of animals, found their way very quickly into the blood, although the thoracic duct was tied, and were detected in the left side of the heart much sooner than in the right side.‡

6. In experiments by FODERA,§ it appeared that two saline solutions, applied to the inner and outer membrane of an isolated portion of intestine in a living animal, were united in the small veins leading directly from that portion of intestine.

7. In experiments by MAGENDIE, it appeared that a poison applied to an isolated vein, with all precautions to avoid contact with other textures, or even to an isolated artery, gradually transuded into the interior of the vessel, and then produced its usual effects.

8. In cases of disease where large deposits of morbid matter have taken place within a short time,—in cases of Suppuration, of Fungus Hæmatodes, and of Melanosis, the veins of the affected parts have been found loaded with the morbid matter, more generally than the absorbents.

It would appear, therefore, that the veins are concerned in the function of absorption in

* Phil. Trans. 1808.

† Journal de Physiologie, 1822.

‡ Bibliotheque Universelle, Jan. 1818.

§ Recherches Experimentales sur l'Absorption et l'Exhalation.

all the following ways:—1. They themselves absorb, chiefly by their smallest branches, at least fluid matters. 2. The contents of the lacteals and lymphatics are probably partially intermixed with those of the veins in lymphatic glands. 3. Some of the smaller lymphatic trunks terminate in veins. 4. The largest lymphatic trunks terminate in the great veins of the neck." 84.

Since the appearance of Wilson Philip's work on the vital functions, it has been very fashionable to believe, that nervous influence is identical with the galvanic fluid, or that the relationship between the laws and properties of these two principles is so close, that the effects which they produce upon the animal frame are strikingly alike. Although there may be more than plausible appearances to countenance this theory, it appears to us very far from being so settled by demonstrative experiments, as to warrant the general adoption which it has received from the profession. Galvanic excitement is the strongest stimulant which can be applied to the muscular fibre, and after all other forms of stimuli have ceased to operate upon the dead body, an electric shock can still awaken its irritability, and stimulate the muscles into violent contortions. But if galvanic be the same with nervous influence, or even a tolerable substitute, why can we not preserve the irritability of muscle after it has been separated from its nerves, by means of this agent for an unlimited period? Why does the stomach digest food for a very short period only, after section of the eighth pair of nerves, although it be regularly supplied with galvanic influence; and why will muscular irritability ultimately cease, although it be unremittingly excited by electricity? As long as galvanism is applied, contractility and secretion should proceed if these functions depend upon the action of nerves, and if galvanic influence be the same with nervous energy; but in despite of this stimulus, they speedily cease, and not only cease, but, what is strikingly worthy of attention, cease more speedily in cases where this stimulus has been applied, than in those where no artificial efforts have been made to prevent its exhaustion. Although we are very far from believing in many of Dr. Calvert Holland's conclusions, in his *Experimental Inquiry into the Laws of Organic and Animal Life*, still the experiments, which he has performed upon the *par vagum*, in our opinion wholly overturn the conclusions of Wilson Philip in favour of the identity of galvanic and nervous influence, which he has drawn from experiments upon the same nerve. It is now quite certain that the stomach can digest its contents after section of this nerve, or even excision of a part of it, if the trachea be previously divided, or—what we have found equally sufficient—if an aperture be made in the windpipe, large enough to contain a tube of the size of an ordinary female catheter. It would appear, therefore, that indigestion follows section of the eighth pair, without this precaution, principally, if not wholly from the derangement which occurs in the pulmonary functions; and that galvanism, in restoring the digestive process, acts only as a local stimulant which may be entirely dispensed with, if the lungs be suffered to carry on their functions without impediment.

Again, if galvanism and nervous influence have any properties in common, how does it happen that the former can act upon muscular fibre through some nerves only, and not through all? From the experiments of Haller, Fontana, Bichat and Mayo, it would appear that the heart and intestines are unaffected by irritating the nerves which immediately supply

them; and Bell, Magendie and Beclard have shown that scarcely any muscular contractions can be excited by the posterior portions of the spinal nerves or the ganglionic department of the fifth nerve, although strong muscular action may in this way be elicited through the anterior spinal nerves, and through the third, fourth, sixth, eighth, ninth, and part of the fifth and seventh central nerves. Were galvanic fluid generated in the human body by the contact of nervous with muscular texture, it should be elicited from all nerves, if not equally yet in some degree; and could galvanic fluid supply the place of nervous energy, it should not happen that one class of nerves are obedient to such stimulation, while another class, which are equally indispensable to muscular action, wholly refuse to convey to the textures they supply the galvanic stimulus. The Doctor does not devote much space to this subject, but we are glad to find that the observations, which he makes upon it, are characterized by that prudent discrimination and dislike of theory, which mark not only the present volume, but all the preceding investigations of the author.

"Although we gave reasons for thinking that Secretion and Nutrition are truly independent of nerves, yet several facts show, that physical impressions on, or injuries of, the nervous system, materially and variously *influence these functions*, as well as the circulation in the small vessels, which are their seat. This kind of influence of physical impressions on nervous matter, is also imperfectly understood, and not easily distinguished from the effects of mental acts; but it seems exemplified in the following instances:

1. The effect of section of the eighth nerve in the neck, is not merely suspending the secretion of gastric juice at the stomach (which is a somewhat ambiguous case), but also in exciting a degree of inflammatory action there; in preventing the usual effusion of mucous in the intestines, even when arsenic has been swallowed;* and, on the other hand, in exciting inflammation, and increasing the mucous secretion, in the lungs and bronchiæ.†

2. The effects, (viz. inflammation, ulceration, and sloughing,) produced on the eye-ball, and in some instances on the membrane of the nose, and on the gums, as was first ascertained by MAGENDIE, by section of the fifth nerve, which supplies these parts; and likewise, in a less degree, by section of the sympathetic nerve in the neck,‡—effects which have also been seen, in some cases in the human body, from disease of the fifth nerve.

3. The inflammatory condition, with increased and altered secretion, of the mucous membrane of the bladder, in many cases of paraplegia, dependent on injury of the spinal cord.

The diminished nutrition and diminished secretions (e. g. by the skin), often observed in a limb which has been for some time palsied, by section of its nerve, or disease of the brain, may be thought to illustrate the same point; but these effects are perhaps sufficiently explained by the total inactivity of such a limb.

It is to be observed, that such effects as those now stated, on secretion and nutrition, have been observed only in certain parts of the body, and chiefly from injury of certain of the nerves supplying these. These are the sentient nerves of the parts in question; and the secretions which are changed, are generally such as are habitually excited by irritations producing sensation. It is still doubtful, whether the whole of the effects of these injuries on secretion and nutrition may not be explained by these considerations.

* Brodie, Phil. Trans. 1814.

† WILSON PHILIP, I. C. SWAN, Essay on the Connexion between the Action of the Heart and Arteries and the Nervous System.

‡ See DUPUY, Journal de Medecine, t. xxxvii.

These statements of physical phenomena, however, illustrate the very peculiar powers, known only by their effects on other parts of the animal frame, which the Nervous System in living animals possesses. Only one theory, in explanation of these powers, appears to deserve attention, viz. that which ascribes them to Galvanism, evolved in the animal frame, especially by the contact of nervous with muscular substance. It is known that, by the contact of these substances, galvanic phenomena, in a slight degree, may be produced; and that galvanism, however evolved, is a powerful stimulant of muscular contraction,—in an excessive degree, is a powerful sedative,—and has also appeared frequently to influence the capillary circulation and secretions.

It appeared also, in some experiments by Dr. EDWARDS, that when the nerve and muscle of a frog were laid on a good conductor of electricity, irritation of the nerve had much less effect in exciting the muscle, than when they were laid on a non-conductor; which he ascribed to the galvanism supposed to be excited in the nerve being carried off by the conductor of electricity in the former case, and therefore not affecting the muscle.*

But whatever be the true explanation of this fact, the following general observations may be stated to the Galvanic theory of Nervous actions, such as we have hitherto considered them.

1. The causes which excite, in the highest degree of intensity, those changes in nerves by which muscles are excited (e. g. such causes as bruising with a probe, or pricking with a pin), seem quite inadequate to the production of a sudden and powerful galvanic influence.

2. We have seen that these causes do not act on all nerves, and through them on all muscles which they supply, but only on the nerves of certain muscles, and only on certain of these nerves.

3. We have seen that the power of exciting muscular contraction is so far from residing in nervous substance in general, that it resides on one surface of the spinal cord, and not on the other,—nor in its centre; nay, it resides in one part of the nervous fibre, in the medulla oblongata, and not in another part of the same fibre, half an inch higher in the brain.

4. While the changes in the nervous system, which excite muscles to contraction, take place only in certain parts of the nervous system, those which exalt or depress the vital power of muscles, appear to take place especially in others, and therefore affect especially other muscles; and the same cause (e. g. a violent concussion) which produces one of these effects exclusively in one nerve, may produce the other in another nerve immediately adjoining it.

These facts seem sufficient to show, that if it be galvanism which enables nerves to act on muscles in the living body, it is galvanism excited by means, and subjected to laws, very different from what we observe in examining the galvanic phenomena of dead matter. And this is equivalent to saying, that nerves act on muscles in the living body, in virtue of certain *vital powers*." 150.

With this very short and imperfect notice of Dr. Alison's *Outlines* our readers must rest satisfied, as it is utterly impracticable to lay before them, in the present place, any adequate epitome of a volume of physiology, which is literally crowded with general statements and abstract facts. Written more immediately for students, and professedly as heads of lectures, it is not to be expected that much illustration and detail would be introduced, nor that the professor would often stop, while sketching the leading outlines of his course, to enter into original investigation or lengthened argument. When the subject is especially interesting he occasionally dilates, or when

the view in which he is indulging is considered open to dispute, plausible objections are anticipated and the leading arguments, by which it stands supported, are carefully laid down; but even then conciseness and generalization are observed, and the reader is never permitted to forget that he is merely perusing the sketch of a performance, which the author intends to fill up with more minute research in another place. This much we have deemed it necessary to specify, as some superficial readers, forgetting the original aim of the writer, might consider many of his subjects unfinished, and some of them scarcely more than entered on. While, however, this work is to be regarded as an unfinished outline, which a course of lectures are intended to clothe with illustration and detail, it must be equally useful to the full grown physiologist, as to the mere student; for while it prepares the latter, by its general enunciations and leading statements, for entering into the more minute and mysterious labyrinths of the science of function, the former can advantageously refer to and depend upon it, for an able, concise, and correct exposition of the principal facts of his favorite science, which his more matured attainments can seldom fail to amplify with appropriate illustrations. It is written with the true spirit of an experimental philosopher. Unsupported theories are seldom noticed and never dwelt on; ascertained facts are carefully and fully stated; naked speculation is constantly avoided, and, although the Doctor is by no means innocent of novelty in some of his doctrines and opinions, yet he candidly adduces the authorities which exist against him, and briefly but fairly enumerates the arguments and facts by which they are opposed.

There can scarcely be a doubt, but that outlines so ably sketched will be ultimately filled up by the pen which drew them; and knowing as we do the industry, impartiality, and sound judgment of Dr. Alison, physiology could not but reap a harvest from his labours, were they only limited to a philosophical *digest* of our present system; of all the sciences, which are included within the curriculum of a medical man's education, none is so obnoxious to false facts and delusive fancies as physiology; and it were a question of no trifling difficulty in its present state to decide, whether he who adds to its real discoveries, be a greater benefactor than he, who sweeps from its table of contents all the crude imaginations which crowd and cumber it.

VIII.

ON DISEASES OF THE LIVER AND ITS APPENDAGES. By *M. Andral.*

[Pathological Anatomy, Vol. II.]

IN the 28th No. of this journal, we selected an article from this able work, now rendered accessible to English readers by the excellent translation of Drs. Townsend and West, as a specimen of the performance. We now proceed to give an abstract of that chapter which treats of the pathological anatomy of the liver.

The diseases of this organ, M. Andral observes, are seated either in the substance or the excretory ducts. He therefore treats of these separately.

I. DISEASES OF THE PARENCHYMA OF THE LIVER.

"If we carefully examine (says he) the structure of the liver, we find that it is composed of two substances; one reddish, formed chiefly by the ramifications of the capillary vessels of the organ; and the other white or yellowish, which seems chiefly destined for the secretion of the bile.

In the natural state, these two substances are distinct; but yet a certain degree of attention is requisite to distinguish them. When more blood than usual happens to stagnate in the liver, the distinction between them is lost, and the organ presents a uniform red colour. When, on the other hand, it contains less blood than usual, the yellow substance becomes more apparent, and in some cases the deficiency of blood is so great, that the red substance loses its colour, and the whole of the liver presents a whitish tinge." 583.

These shades of colour may be owing to a mechanical obstruction to the venous circulation, in which case the liver is uniformly red—to the diminution of the total mass of the blood, blanching the organ—or to certain affections of the organ itself, which affect its circulation, and induce a state of hyperæmia or anæmia. Other changes may also take place. Thus the white substance may become hypertrophied, in two degrees—one, where the substance of the organ is traversed by lines or circumvolutions of a yellowish white colour, much more distinct than in the natural state—the other, where both the interior and exterior are studded with numerous granules, either isolated or agglomerated, and exactly resembling yellow wax. These whitish granules he considers to be merely the white substance in a state of hypertrophy.

"While the white substance of the liver is thus preternaturally developed, the red may continue in its natural condition, or may be altered in its colour, which often becomes very pale or olive green; and in its bulk, which may be either increased or diminished. Laennec remarks that *cirrhosis* is often accompanied by a shrivelled state of the liver. The red substance, as it wastes away, becomes infinitely less vascular, and in certain cases, is in a great measure transformed into cellular or cellulo-fibrous tissue. This state of the liver is almost constantly accompanied by ascites." 586.

The red substance is also susceptible of a remarkable kind of hypertrophy which produces in the interior of the liver, small, hard, red masses, which are distinguished from the surrounding parenchyma by their greater consistence and deeper colour. These may be unequal in form and size, or else distributed through the liver, so as to divide it into a number of similar lobules.

II. LESIONS OF THE HEPATIC CIRCULATION.

Hyperæmia is considered by M. Andral as one of the most frequent morbid conditions of the liver. It is sometimes general, and the organ is then uniformly red—its volume increased—and its consistence little altered, when the affection is simple. In many cases the hyperæmia is only partial, forming red spots in different parts, surrounded by paler parenchyma.

"Hyperæmia of the liver is of three kinds.

The first results from a process of irritation. This irritation is sometimes idiopathic, and sometimes subsequent to a similar affection of the alimentary canal.

In the second kind, the blood accumulates in a manner wholly passive in the parenchyma of the organ, just as it does in the gums of scorbutic patients.

The third kind is purely mechanical, being observed where there is any obstacle to the free entrance of the blood into the right side of the heart; the blood then stagnates in the supra-hepatic veins, and *obstructs* the liver.

Congestion of the liver from a mechanical cause is frequently produced in infants while coming into the world; and such of them as die in a state of asphyxia have that organ so gorged with blood, that it sometimes ruptures its vessels and is effused in a layer on its convex surface beneath its investing membranes. M. Billard has repeatedly seen an effusion of blood into the abdomen produced by this turgid state of the liver.

Instead of accumulating in the hepatic capillaries, the blood may escape from its vessels, and become effused into the parenchyma of the organ, thus producing a kind of hepatic apoplexy. Some of these hæmorrhages are owing to the rupture of one of the principal vessels distributed to the liver.* In other cases, however, there is no perceptible rupture of any vessel, all that is observed being a collection of fluid or coagulated blood in one or more points of the liver. This was well exemplified in a liver shewn me by M. Rullier, which, besides various collections of fluid and semicoagulated blood, contained also some of a firmer consistence, in the centre of which were contained several hard fragments of fibrine deprived of their colouring matter. The examination of this liver led me to enquire whether fibrine thus deprived of its colour might not be the origin of certain accidental productions, such as encephaloid and others, that are often found in the liver; and my conjecture received additional confirmation from the examination of another liver shewn me shortly after by M. Reynaud, in which I was able to trace the various changes of the blood from the perfectly fluid state until it passed into a substance possessing all the characters of encephaloid." 589.

III. LESIONS OF NUTRITION.

Hypertrophy and atrophy produce, of course, a change in the size of the organ; while other lesions induce softening or induration. Hypertrophy of the liver is of several kinds, as regards colour, consistence, and form. The colour is sometimes extremely pale—deep red, or variegated, with grey, green, brown, and black tints. The livers of the fœtus and of very young children are naturally in a state of hypertrophy, as compared with the adult. As the infant advances in age, the liver *diminishes* in size—ceases to extend into the abdomen, and retires behind the ribs, below which it does not extend, except when in a state of disease. In some cases, however, the child, and even the adult, retain this natural Hypertrophy of infancy. This state is generally connected with other perversions of nutrition, forming altogether the scrofulous diathesis.

"Atrophy of the liver, considered as affecting its substance generally, may extend to the three lobes, or be confined to one, and may be accompanied by induration or by softening.

The liver, when in a state of atrophy, is generally diminished in size; this, however, is not necessarily the case, as it is sometimes as large as, or even larger than in the natural state; but then, in proportion as its proper tissue has disappeared, it has been replaced by cellular tissue. In such cases the organ having lost its peculiar structure and organization, is reduced to its primitive frame-work, and large patches are found in it occupied only by

* Vide *Clinique Medicale*.

cellular tissue, which sometimes becomes hypertrophied, and in some cases contains serous cysts or hydatids, which, far from announcing an augmentation of the organic action of the part where they appear, are perhaps connected with its diminution; the cellular tissue, though unable to produce the hepatic parenchyma, showing its tendency to organization by becoming a serous cyst.

Induration of the liver has long attracted the attention of medical men. It is frequently accompanied by hypertrophy or atrophy of the parenchyma; but it may also exist without either. The liver, when indurated, may be of a lighter or deeper red, or of a grey, green, or brown colour.

Softening of the liver is, at least, as frequent as its induration. There are two degrees of it. In the first, the diminution of consistence of the parenchyma is not perceived until it is pressed between the fingers, when we find that it readily gives way, and is reduced to a pulaceous mass. In the second, which is much more uncommon, the softening is evident to the eye, the tissue of the organ presenting an appearance similar to that given it by prolonged maceration: the vascular apparatus is, in a manner, dissected from the cellular frame-work, and its ultimate branches, deprived of their uniting medium, float in a red or grey pulp, which seems to be merely the hepatic parenchyma reduced to the fluid state.

The softened liver sometimes retains its ordinary colour; in some cases, it is in a state of hyperæmia, and consequently red or brown; and in others, it is remarkably pale, which seems to result from its tissue being modified in such a manner as no longer to admit the colouring matter of the blood, of which there are no traces to be found except in the large vessels."* 593.

IV. LESIONS OF THE SECRETIONS OF THE LIVER.

The liver is known to secrete a fatty matter, and if this be in too great quantity, it gives rise to certain morbid appearances in the organ.

"The secretion sometimes occupies the whole extent of the organ, and sometimes exists only in some scattered points. Instead of being infiltrated through the parenchyma, it is occasionally collected in some one spot, being deposited there like tubercle or pus, and forming grey or white morbid masses, which thrust back the substance of the liver, and present to the eye and the touch all the properties of fat. Masses like these have been found wholly formed of cholesterine. The causes that give rise to this fatty secretion in the liver are as yet unknown, it being a mere hypothesis to attribute it to irritation." 595.

It is curious that almost all the cases presenting the fatty degeneration, have been consumptive patients—that is, people in whom the blood was no longer properly elaborated, and in whom the pulmonary exhalation could not be accomplished as in the natural state. Hypotheses will not fail to be erected on this foundation.

Of abscesses in the liver there is nothing worthy of notice in this part of Andral's work. The able author says that hepatic abscesses are so rare in these climates that many authors have actually doubted their existence. This is carrying the thing rather too far. Unquestionably the affection is infinitely rare compared with what occurs in tropical climates; but still the disease is seen sufficiently often to dispel all doubt respecting its existence.

* Vid. *Clinique Médicale*, (Maladies de l'Abdomen.)

CANCER OF THE LIVER.

This designation is rarely if ever applied to morbid degenerations of the liver in England. It is but fair to hear what M. Andral has to say on the subject.

"Writers have described by the name of cancer of the liver, an alteration of that organ in which certain morbid productions distinguished by well marked physical characters are deposited in its parenchyma. They are those that have been described in the first volume by the names of *encephaloid* and *colloid* matter. They produce in the liver masses of various sizes, that are sometimes uniformly white, and sometimes white mixed with red. Their consistence is not always the same, some of them being firmer than the surrounding parenchyma, and others resembling a greyish pap, in the midst of which a greater or less quantity of blood is often effused. These masses frequently occupy the greatest part of the organ, leaving scarcely a vestige of its natural tissue between them. They occasionally project on its external surface; and the liver then has a knotted appearance which is sometimes perceptible through the abdominal parietes.

It follows from some facts already mentioned, that these so called cancerous masses may arise from an effusion of blood, which, when coagulated within the substance of the liver, undergoes the various changes I have described. But, it is far from being proved that such is always the origin of these cancerous tumours. In many cases, all that we can discover is, at first, the infiltration of a minute portion of the parenchyma of the organ with a whitish matter, the parenchyma being at the same time more or less injected at the point of infiltration or around it. This whitish matter gradually becomes more abundant, and the proper tissue of the organ no longer displays such an appearance of vascularity, though its vessels may still be detected by dissection or maceration; and it is then often discovered that the vessels traversing the morbid mass, which at first appeared to be vessels of new formation, belong to the liver itself. The surrounding parenchyma generally falls into a state of atrophy, but it may also become irritated and inflamed, in which case it often secretes pus, or ulcerates, and in this way produces a communication between the mass of encephaloid and the cavity of the peritoneum or of the intestine." 601.

From the above it is evident that what is termed cancer of the liver by the French pathologists, is the fungus hæmatodes of British anatomists.

HYDATIDS.

These are very common occurrences in the liver, and the cysts in which they are contained, are sometimes so enormous as to occupy almost the whole of the organ. The parietes of these cysts are generally composed of fibrous membrane, capable of being detached from the tissue of the liver without tearing it.

V. DISEASES OF THE BILIARY DUCTS.

The author sets out with the following passage.

"The biliary ducts and gall bladder are liable to various alterations, none of which give rise to any unpleasant symptoms during life, unless they produce a diminution of their caliber." 602.

M. Andral, of course, excludes morbid secretions, or formations, as

biliary calculi, from diseases of the parts containing them. The lining mucous membrane of the biliary ducts, he observes, is sometimes so swollen, from the effects of hyperæmia, as to contract, or even totally obstruct the passage of the part affected. He has seen jaundice arise from this cause.

"When the ducts have been obliterated for a certain length of time, the gall bladder, which was at first dilated, contracts, the bile is absorbed out of it, and its diminished cavity contains only a little mucous matter, or else is completely filled with calculi.

Under the influence of acute or chronic irritation, the walls of the biliary ducts sometimes become softened or ulcerated, and eventually perforated; in consequence of which the bile escapes into the cavity of the peritoneum. The perforation occasionally takes place in some point behind where the duct is obstructed.

The gall bladder presents the same alterations as the ducts, its walls being found red, ulcerated, softened, or perforated. In this last case, the bile sometimes escapes into the peritoneum, and sometimes is evacuated through a perforation in the integuments." 604.

VI. ALTERATIONS OF THE BILE.

We cannot establish any connexion between the alterations of the liver and those of the bile secreted in it. In the majority of those organic diseases which have been described, the bile in the ducts and gall bladder does not appear at all changed in quantity or quality. In other cases, again, where the structure of the liver does not appear at all changed, the bile is either excessive or deficient in quantity, or altered in its sensible qualities.

"I have sometimes been astonished at the immense quantity of this fluid in the intestines, in cases where they were but slightly inflamed, and the liver did not appear in the least altered.

The reason of the secreting fluids being altered without the secreting organs being so, is, that in the liver, as in every other organ destined to separate a fluid from the blood, the alterations of texture that are apparently the most serious, are not always those that exert the greatest influence over the act of secretion; the derangement of this secretion seems to depend rather on certain lesions of the organ that escape our observation, and not unfrequently on the lesions of other parts. Thus, Magendie's experiments have proved that, by changing the food of an animal, we can alter at pleasure the composition of the bile, which is evidently owing to the previous alteration of the blood from the same cause." 607.

Alterations in the quality of the bile may be discovered by simple inspection—by physiological experiments—and by chemical analysis.

"We have long been aware, from experiments on animals, that the bile taken from some dead bodies, produces no other inconvenience when introduced into the living body than an inconsiderable irritation, while that taken from others produces much more serious consequences, and sometimes even death itself. In some instances, it may be touched and tasted with perfect safety; in others, it produces pustules, ulcers, &c., on the tongue and lips. Here, then, we have very important changes in the bile, which we never could have learned from anatomy.

The only alterations in the quality of the bile discoverable by inspection are changes in its colour and consistence. It has been observed to have every shade of colour from the deepest black to an almost transparent whitish tint. Its consistence is also very variable, it being sometimes as thick as pitch, sometimes like glue, and sometimes fluid as water.

We learn from chemical analysis that the different component elements of the bile vary greatly in their proportions. Sometimes, especially in cases of fatty liver, it is found to contain scarcely any thing but water and albumen. At other times, the yellow matter, the resin, or the cholesterine is the predominant principle. The causes on which these variations depend are as yet unknown." 608.

It would be an interesting inquiry, and one far more profitable in practice to endeavour to ascertain the phenomena produced in the human body by its own bile, in various states of sensible alteration. This part of the enquiry M. Andral has entirely overlooked. We have only room here to make one observation of a therapeutic nature. We recently saw two instances of the most obstinate and long-protracted jaundice, where the patients were reduced to skeletons, and the skin, for many months, the colour of mahogany; and where inspissated ox-gall produced the best effects—tinging the motions, lessening the irritability of the stomach, and increasing the peristaltic action of the intestines. In both instances recovery ultimately took place, after all hopes had been abandoned by physicians and friends.

With the following passage, containing a true statement, and not much calculated to render us very dogmatical in our prognoses and diagnosis, we shall conclude this article.

"It was supposed that jaundice always arose from some obstacle in the biliary ducts to the passage of the bile into the duodenum, but this opinion is incorrect, inasmuch as those ducts are often found perfectly free in persons that die of the disease. Indeed nothing can be more variable than the state of the liver in jaundice, any one of the numerous alterations to which that organ is subject, may be attended by it, but none of them are constantly or inseparably connected with it. There are even cases of icterus where we cannot discover any lesion whatever in the liver or its appendages; and in many such cases we have reason to doubt that the liver had any thing to do with the disease. We are not to suppose, however, that the yellow tinge of the skin can be produced only by the presence of the colouring matter of the bile in the blood, as it sometimes seems to arise merely from a sanguineous suffusion of its tissue. Such, especially, seems to be the nature of the *icturus neonatorum*, in which we can observe the red tinge of the skin gradually changing into a yellow, which in its turn fades away, and is succeeded by the natural colour of the part. Neither can we find in the liver of children that die of this disease any constant lesion that could account for it. Some have asserted, indeed, that in such cases they found the liver gorged with blood; but it is found at least as frequently in the same state where there has been no jaundice at all." 611.

IX.

OBSERVATIONS ON THE USE OF INSTRUMENTS IN CASES OF DIFFICULT AND PROTRACTED LABOUR. By *John Beatty*, M.D. Licentiate of the King and Queen's College of Physicians in Ireland.

[Dublin Medical Transactions.]

THIS is so long and important a paper, that we think it right to dedicate an article to the analysis of it. There can be no doubt that, in 29 cases out

of 30, Nature requires no assistance—at least instrumental assistance, in the process of human parturition. In such cases the accoucheur has only to wait and watch the occurrence of any unfavourable accident, or deviation from the ordinary course. Unfortunately a certain portion of cases do occur, in which instrumental aid is necessary—and it is therefore our duty to inquire into the merits of the means proposed to assist delivery. It is often a difficult, and always an important task to discriminate between the necessity for instruments and the propriety of leaving Nature to her own course. After a long and active experience respecting the comparative value of the different instruments used in long-protracted labours, our author has formed his own conclusions, and has now been induced to lay a faithful account of his experience before the public. He acknowledges that his opinions on these important subjects, differ from those of some of his most eminent brethren in the obstetric line in his own city; but such difference of opinion must be expected to exist under all such circumstances. The cases in which mechanical assistance is required, may be comprised in two divisions.

“1st. Those where there is a disproportion between the head of the child, and the passage through which it must come; and 2dly. Those in which, although no mechanical impediment exists, the expulsive powers of the mother are not sufficient to accomplish the delivery.

Under the former will be found those caused by the deformity of the bony parietes of the pelvis, and by disease or rigidity of the soft parts, as well as unnatural size of the head of the fetus, face presentations and transverse position of the head. And under the latter, those in which delivery is delayed by general weakness of the patient, hæmorrhage, frequent faintings, convulsions, great exhaustion, fever, &c.

To assist delivery under such circumstances, two classes of instruments have been devised; 1st. Those by which extraction may be effected without injury to either mother or child; 2dly. Those by which the life of the latter must necessarily be sacrificed. I need scarcely remind the members of an enlightened and humane profession, that the adoption of the latter alternative, is a step calling for the most serious consideration, and one that involves an awful, and heavy responsibility. The value of human life is not to be estimated by the age, nor is there in the eye of the law, either human or divine, any distinction between that of the octogenarian and the child unborn.

It matters little, therefore, what the nature of the situation is, in which a fellow-being committed to our care is placed, whether it be fever striking him in the prime of life, or a disease requiring the performance of a capital operation, or the perils attending his first entrance to the world, it is our bounden duty to employ such means as will best insure his safety.” 44.

By these observations Dr. Beatty would wish to be understood as overlooking, for a moment, the well-being of the mother, in the attempts to save the life of the child—he means that the life of the infant is to be sacrificed *only* when all means to preserve it, consistently with the safety of the mother, have been tried and proved inefficient. The perforator and crotchet were the instruments employed formerly—and, even so late as 1746, Lamotte states that, when surgeons were called in to cases of midwifery they took their instruments with them—“and brought away the child by their means.” The circumstance of a woman being in labour a day and a half, or two days, was more than sufficient to set them to work—and this was their only resource in all cases indiscriminately. Fortunately a

revolution, in this respect, was effected by Dr. Chamberlain, who, by the introduction of a harmless instrument, gave rise to an investigation into the true nature of difficult labours, and proved the utility and safety of the instrument. This physician's invention of the forceps brought about a classification of difficult labours, and led practitioners to discriminate between cases in which the life of the child must be sacrificed, and where it may be saved. At present, it is nearly the universal opinion that the perforator and crotchet should be the practitioners last resource. The necessity for applying the forceps, and the period at which they should be applied, are not so easily settled. The urgency of a case cannot be estimated by the number of hours it has lasted, but by the state of the mother in each individual instance.

"Dr. Denman defines difficult labours to be, 'those in which, although the head of the child presents, the delivery is not terminated in twenty-four hours from the commencement of real labour.' Every practitioner must be aware that such cases are by no means unfrequent, and that the efforts of nature in very many of them, and even in others of much longer duration, are sufficient eventually to expel the child. But when labour is thus protracted, circumstances may, and do often render it desirable, to expedite delivery. These, as I have said, relate not to time, but to the condition of the mother; some women being able to bear a much greater length of suffering than others. In the more simple cases, those that are unconnected with convulsions, hæmorrhage, &c. the state of exhaustion of the mother, and cessation of labour-pains, are the best indications for the interference of art.

Doctor Osborne says, 'that in the state indicating the use of forceps, all the powers of life are exhausted, all capacity for further exertions is at an end, and the mind as much depressed as the body, they would both sink together under the influence of such continued and unavailing struggles.'

Now, to wait for such a period as this, is but to delay the operation, until the chances of success are almost lost; in fact there will be little prospect of any thing, but the removal of a dead child, from a dying mother; and it is such a practice, that has at times, brought this valuable instrument into disrepute and disuse: the want of success has been charged upon the operation, where it ought to be laid at the door of the operator. It is with us in this, as it is with the surgeon in strangulated hernia, the operation should be performed as soon as the necessity for it is found to exist, every moment's delay diminishing the prospect of a successful termination; and it is to this principle that so many happy results from the use of the scalpel in that disease, in modern times, are to be attributed. Let not the accoucheur, therefore, wait until the powers of life are exhausted; his duty is to prevent such an occurrence, and this is to be done by the timely application of the forceps. Delivery with this instrument may be attempted in whatever position the head may be, if it is sufficiently low in the pelvis, while at the same time the os uteri is dilated, or the soft parts are relaxed. As soon as matters are in this state, the practitioner should proceed to delivery without waiting until the mother's strength is so exhausted as to raise alarms for her safety, and oblige him to fly to any means of extraction, without regard to the life of the child. Delay under such circumstances, and running the patient to the last extremity, in giving her and nature (as it is called) every chance, is in my opinion, a main cause of the too frequent use of the perforator. *Neque timerè, neque timidè*, is the best motto by which the accoucheur can be guided in such circumstances." 50.

By this timely interference, he thinks, the evils attending upon difficult labours, such as contusions, inflammations, and sloughing of soft parts, would be obviated—and as to the bad effects said to follow the use of the

forceps, he has never seen them, when the instruments were properly employed. In looking over his case-book, the author finds that, during 42 years, in which he had practised midwifery, five of which were spent in the Dublin Lying-in Hospital, he delivered 111 women with forceps or lever—and yet, in no instance of these 111 cases, did any unpleasant result follow. None of the mothers died—none suffered laceration of the perineum, nor any of those evils which are set forth as the effects of the forceps. All the children that were supposed to be living at the commencement of labour were born alive, and none had any injury or mark inflicted by the instrument.

“With respect to the operation, no great dexterity is required for its performance; a little management in the introduction of the blades, and patience in the extraction, is all that is required to bring it to a happy termination. The instrument I have always used, is that which is called male and female, from the transverse opening in the root of one blade, through which the other is passed—other practitioners prefer the curved forceps—it is quite immaterial which is chosen, provided they are used in proper time, and with good judgment.

Having ascertained by the rules already laid down, that immediate delivery is desirable, my custom is to empty the bladder and rectum, by the catheter or an enema if required. The patient being placed on her side, as near to the edge of the bed as possible, I proceed by introducing the female blade of the forceps, slowly and carefully over the upper side of the head of the child, until it reaches beyond the ear; this being accomplished, the chief difficulty is overcome, for the male blade being passed through the slit in the female blade, readily applies itself in the proper position, by gently urging it forward under the inferior side of the head. It is of importance to attend to this order of proceeding, for if the female blade were introduced to the under side, it would be difficult, from the relative position of the patient, and the bed, to pass the male blade through it. The application of the instrument usually brings on slight action of the uterus, although it may have ceased for several hours. This I always wait for, and taking advantage of the natural effort, the perineum being supported by the nurse-tender, or my own left hand, I have seldom found any difficulty in extracting the child alive and uninjured, provided it were so previous to the commencement of the operation. The operation as performed in this manner gives so little pain, and delivery is in general so easily accomplished by it, that I have been several times requested by patients, with whom I had previously employed forceps; to use them in subsequent labours.” 53,

Our author has been called in to many cases where the perforator was ready on the table for the destruction of the fœtus, but where he brought it safe into the world by the forceps. It is no uncommon circumstance, he observes, to see children born alive and cry, whose heads had been opened, and the brains partially destroyed! Dr. Burns relates cases where children have lived in this mutilated state for a day or two. Mr. Dease states instances where “the child has been miserably dragged alive into the world, with a great part of the brain evacuated.”

“Similar instances have (I understand) occurred in this city, in one of which humanity prompted the accoucheur to plunge the child into a vessel of water, to put an end to its existence and cries.

I can never forget a scene of horror to which I was a witness in the year 1800. I was called upon to see a very young lady, in labour of her first child, who was under the care of one of the oldest and most eminent practitioners in this city (since dead); her labour was most violent, which she bore with great impatience and noise. The head had been

down on the perinæum (he said) several hours; I proposed to give more time, and an opiate, not doubting the powers of nature, or to try the forceps, which he declined, on account of its being her first child, and the apprehension he entertained of her being exhausted; and finally, he opened the head. The operation, as it always does, excited extraordinary uterine action, and before it was well concluded, or the brain evacuated, so as to lessen the bulk of the head, the child was propelled into the world alive and crying.

The old gentleman whose patient she was, was a person of very fine feelings, and the reader may imagine his sufferings on viewing the effect of a rash and ill judged operation; he declared no earthly consideration should ever induce him again to witness the application of the perforator." 55.

Some cases are next detailed, of which we shall abbreviate one or two.

Case. 1. Mrs. M. aged 30 years, and very corpulent, took labour of her first child on the 28th November, early in the morning. At 6, p. m. the membranes burst; and from this date he commences the labour. The pains continued to increase in severity and frequency for a period of 68 hours, during the whole of which she had not slept, or taken any sustenance except a small quantity of whey. Her strength was considerably exhausted. The head was now sufficiently low in the pelvis—the os uteri dilated—and the external parts relaxed. The Doctor then applied the forceps, and waited for a pain, on the occurrence of which, he gave assistance, and a living boy was brought into the world without a scratch. This was a case, he thinks, where there was no likelihood of the labour being over for several hours, if left entirely to Nature, during which time there would have been considerable danger both to mother and child.

Case 2. Dr. B. was called to a patient who had been upwards of twenty-four hours in severe labour of her first child. The head was pretty low in the pelvis, though not on the perimeum. The head of the child was much swollen, and Dr. B. had some difficulty in introducing the forceps, and then waited for a pain, three of which occurred and were assisted, without extraction. The fourth effort was successful, and a large living boy was born.

This was a case, Dr. B. observes, in which the head would certainly have been opened by those who are prejudiced against the forceps. The occurrence of convulsions, in cases of difficult parturition, has been considered as affording a sufficient ground for immediate delivery by perforation of the head. Without wishing to delay too long where the mother is in imminent danger, Dr. B. thinks that many lives might be saved, under such circumstances, by the forceps—especially as this last instrument does not require so long time as the perforator. The following case is given in illustration.

"In the year 1814, a gentleman, residing eighteen miles from Dublin, called on me, to request I would accompany him with all expedition to see his wife, who had been suddenly seized with labour of her first child, attended with convulsions before he left home. We reached his house in about five hours from the time he left it. I found the lady lying on the parlour-floor, labouring under severe convulsions, and quite insensible, in which state she had remained during her husband's absence. On examination, the head was found to be

low in the pelvis, and the os uteri dilated. Without removing her I introduced the forceps, and in a few minutes succeeded in extracting a female child alive. The mother was now removed to bed; the convulsions ceased in a short time; her senses were restored, and the recovery was as speedy as if no untoward circumstance had occurred. I may observe that the gentleman had no more children, and the child then born is now alive, and heiress to his large estates; a consolation of which he must have been deprived, had I rashly employed a destructive instrument. If I had experienced much difficulty in this case, I would have thought myself justifiable, nay, called upon, to sacrifice the child, but certainly not until I knew it was unavoidable; and I state it to show that in the worst of cases, the milder means may be resorted to with considerable prospect of success." 59.

Dr. Beatty cautions us against drawing conclusions too precipitately from the real or estimated measurements of the head and pelvis, as reasons for craniotomy. It is not true that every female with a distorted spine has a deformed pelvis. We should endeavour to ascertain whether the deformity commenced before or after puberty. If the former, then there is reason to conclude that the pelvis has participated. If it did not come on till after the growth of the body was completed, we may hope to find no deformity in the pelvis. It is truly surprising to witness the degree of compression which the head of the child will bear without detriment. Dr. Denman relates the case of a child, born alive, with a depression full an inch in depth, on the left parietal bone, occasioned by a projection of the os sacrum. But the depressed part gradually rose, and, in a few months, regained its original level.

Dr. Beatty's paper is certainly deserving of the serious attention of the obstetric practitioner.

X.

ON POLYPI OF THE HEART AS AN IDIOPATHIC AFFECTION, AND A CAUSE OF DEATH. By *W. Harty, M.D., &c. &c.**

WHEN we look around us and survey the intellectual and moral vigour of this most surprising age, and the strides which have been made within the last few years in almost every department of useful human knowledge, we cease to regret that the more recondite and abstract heights of science would seem to be less occupied in England than they were. The present times are distinguished for the general diffusion of moderate information, rather than for the brilliant achievements of individuals. We shall not stop to enquire if this be better or worse for mankind, as such discussion is wholly foreign to our purpose at present. What is true of the whole, must be true of the part, and thus it is that our own profession participates in the relations of the other classes of the civilized communities of the world. At present we have no imperator in science, but many are co-operating for the common good, and numbers are contributing to the accumulation of knowledge and experience. The cultivation of morbid anatomy has wrought an immense

* Dublin Medical Transactions, Vol. 1. Part 1.

change in the face of medicine and revolutionized its realms. We have derived already great benefit from investigation of the dead after study of the living, and, when the bulk of the profession have become yet better informed than they now are, when facts are more rightly observed, and more accurately recorded, who knows where the chain of advantages may end, what useful discoveries may be made.

The diseases of the chest have received great attention in every age in which physic has been studied. Yet we might almost venture to affirm, that more has been done in the short period that has elapsed from the days of Corvisart to the present, than in fifty preceding centuries. This speaks volumes for morbid anatomy.

Polypi of the heart have long been a theme of contention with physicians and physiologists. It is not wonderful that in former times the most extravagant and idle notions were entertained upon the subject, nor is it to be marvelled at that modern researches should dissipate those unreal fancies. Yet we must not rush on too fast, we should not rashly exchange the extreme of credulity for the extreme of scepticism. If ancient physicians have seen in polypous concretions in the heart the cause of diseases which had no dependence on them, or connexion with them; many modern surgeons have precipitately asserted that their formation occurs only in the agonies of death. More researches, more facts are required to decide this point.

Dr. Harty, of Dublin, has endeavoured to add to the stock of information we possess, and relates some cases, calculated, in his opinion, to throw light on the investigation. We shall notice them with as much conciseness as possible.

Case 1. Miss R. æt. 14, of phthisical family, had been subject for some years to chorea, which had yielded to active purging. In December, 1814, she had a return of the disease, and, after a sudden alarm, it was aggravated with fever, palpitation, and dyspnœa. By free purgation and a bleeding to ʒxij. she was greatly benefitted, and a relapse in February was successfully treated in the same manner. In March she was attacked with inflammatory sore throat, with night delirium, some dyspnœa and palpitation, and pain on pressure in the epigastric and right hypochondriac regions. She was bled and took calomel and James's powder with relief, though the action of the heart was still violent, and required digitalis with purgatives. In April, after exposure to cold, she was again attacked with fever, dyspnœa, palpitation, œdema of the face and a papulous eruption; the urine was scanty and high-coloured. A bleeding and blister procured some relief, but on the 4th she complained of cough, more dyspnœa, palpitation increased by lying on the left side. *Five leeches.* The bleeding from the leech-bites was very free, and she was relieved by them; she was ordered digitalis. On the 6th, the action of the heart strong, preferred lying on the right side. In the evening the pulse was 120, hard, and "communicated a peculiar thrilling, whizzing sensation to the finger, on touching any, the minutest artery in the body."* *Bled to a pint.* The blood was buffy, the pulse softer after the

* We suspect a little of the enthusiastic eloquence of the Emerald Isle in this passage.—*Rev.*

V. S. On the 7th the breathing was quick, the pulse 120. *Bled to ℥j. and again to ℥j. in the evening.* Lying on the left side excited incessant cough. On the 8th she had no pain, the cough was softer, the pupils dilated, and she had vomited. *A blister would not act.* In the evening the pulse was 106, hard, the skin hot and dry—*V. S. ad ʒviij.* *Another blister.* In the night she was thought to be dying, but next morning the respiration was not so panting; she now lay perfectly horizontal, and the palpitation was greatly increased by the erect posture. In the evening of the 10th she died.

On a hurried examination of the body, the lungs were found free from inflammation, and there was very little effusion into the pleural cavity. The liver was of large size. The pericardium exhibited some little appearance of inflammation, and contained about 6 ozs. of clear serum, without any lymph. The heart was hypertrophied and dilated, the vessels on its surface full of blood. A distinct polypus of a whitish colour, unconnected with any coagulum, nearly filled the right auricle and ventricle, its branches extending into the great vessels, adhering very slightly. A thick membranous substance, of the colour of the polypus, adhered with much firmness to the side of the ventricle opposite the septum, penetrating into its interstices, and binding down the valve. Both auricle and ventricle were of vivid red colour and “inflammatory aspect.” The left ventricle was divided into two nearly equal cavities by an adventitious whitish membrane, firmly adhering to the internal apex, and to the sides of the ventricle, and terminating towards the aorta in a rounded organized polypus, which entered above an inch into the aorta. The two cavities into which the ventricle was thus divided communicated with each other very partially. The side of the membrane towards the left auricle was uneven, towards the aorta smooth. The auricle had the same inflammatory appearance as the right; its valves and those of the aorta were impeded by the polypus; three of the columnæ carneæ were much enlarged. The Doctor adds to the case a small row of queries.

“What was the nature and extent of the injury inflicted on the heart, in the first instance by the terrors of the December storm? Was it then a general or partial affection of the organ, or was the nucleus of the disease then formed? Is there not under all the circumstances of the case reason to conclude, that the polypus membrane of the left ventricle had priority over that of the right, and that the great aggravation of the symptoms, together with the peculiar sensation imparted by the pulse, was caused by, or was concurrent with, the extension of the polypus into the aorta? Was inflammation or hyperthrophy of the heart a cause or an effect of the polypus concretions?” 233.

Case 2. Master M. æt. 13, was attacked on the 14th Dec. 1818, with measles, then epidemic, and very fatal. He was twice bled to ʒviij, but on the morning of the 16th tracheitis suddenly came on, for which he was bled, leeches, blistered, and took calomel and James’s powder. In the evening the face was livid and œdematous, the dyspnœa great, the pulse 140. *Warm bath—emetic—blister to sternum.* On the 17th the tracheitis was relieved, but there was pain in epigastrio, particularly on pressure. *Hirud. viij. epigast.* *Vesic. inter scap.* In the evening the respiration was more hurried, and there was palpitation for the first time. *V. S. ad ʒvj.—blister to throat—warm bath.* On the 18th, respiration was freer, but there was

pain in the epigastrium. *V. S. ad 3vj.—digitalis.* In the morning of the 19th the breathing was easier, he lay horizontal with ease, the eruption of measles had altogether disappeared; there was an œdema of the face and slight emphysema of both arms. In the afternoon the skin was hot, the breathing more oppressed, and he complained of noise in the ears. *V. S. ad 3vj.* The pulse now began to impart to the finger the peculiar wiry sensation noticed in the former case. *V. S. in the night, ad 3xj.* Next day the thrilling was more distinct, "imparted by every artery" however small, and even felt through the thick muscles of the extremities; the arms and thorax were emphysematous. The medicines were now changed for purgation and the warm bath. On the 21st the chest, arms, and spine were emphysematous, and there were pain and soreness at the region of the heart, aggravated by inspiration. *Hirud. vj.—digitalis—emp. canth.* On the 22d he lay on the left side without uneasiness. Delirium now set in. On the 23d he lay horizontal, and was evidently sinking. In the morning of the 24th he died.

Sectio Cadaveris. "There was a considerable depression of the sternum, forming an arched hollow between the mammæ; a fact obvious to the eye during life. There was also unusual thickness of the sternum from the point of elevation upwards; there was slight adhesion of the left lung to the pleura in one or two points; also, a slight degree of adhesion near the junction of the two lobes; the external coat of the pericardium was evidently inflamed, though not to any great degree or extent, and there was about an ounce of serous fluid in the pericardium. The liver was enlarged in its dimensions, though by no means to the same extent as in the former case; it was otherwise apparently healthy, while the heart itself appeared larger than was compatible with his years, and the general structure of his frame. The left ventricle and auricle of the heart contained a large and singular polypus, unconnected with any coagulum, and adhering firmly in some parts, and more loosely in others. In the auricle (properly so called) it adhered firmly throughout, maintaining a perfect union therewith by a number of lateral projections, and thence descending into the ventricle by a long and narrow neck, it formed a flat and firm adhesion to the side of the ventricle, throwing out at the same time a band, whereby it was connected to the polypus concretion which loosely occupied the apex and body of the ventricle, and extended thence into the aorta. The body of the auricular polypus branched largely into the pulmonary veins, and in its thickest portion contained a distinct, dense, and compact clot of blood, enveloped therein." 239.

Now it is on these cases that Dr. Harty builds his diagnosis of polypi in the heart. The symptom which he considers as peculiarly characteristic is the peculiar thrilling or whizzing sensation communicated to the finger by every artery in the body as well as by the heart. When it occurs he concludes that the polypus has entered the great vessels issuing from the heart, and he ingeniously allows that polypus may exist in the heart without this diagnostic sign, *provided* it has not entered the valves. After some critical observations on the opinions of Senac, Bertin, and Laennec, Dr. Harty relates the case of Mr. Holder, referred to by John Bell, as "liker this disease than almost any other." It is given by Mr. Cheston, of Gloucester, in Simmons' London Medical Journal, for the year 1785. It will probably be new to our readers, and is worthy of perusal.

Mr. Holder was a surgeon-apothecary, in extensive and laborious practice, and had for four years before the fatal termination of his malady in 1775, experienced occasional pain and distress in the thorax on any great exertion—"of late however (i. e. a few months

before death) his pain extended farther into the right side and upwards towards his neck, where he was constantly sensible of a noise," similar to that of "a stream of water passing over obstructions, or forcing a passage through a narrow confined place." The gushing noise in the thorax became so strong and loud, that he often expressed his surprise at its not being heard—the pain at times was very great, and greatest when noise was least.—"That gush, he used to say, was his friend: while gush stood by him he should live." Pressure on the carotid artery relieved the noise, but it produced increase of pain. The pulse was hard and contracted, without the least intermission, and what was singular, the motion of the heart was not to be felt, though repeatedly searched for.—Having sustained a severe bilious attack, he experienced some remission of pain, and the apex of the heart was felt after it. As his strength declined, he found himself much more at ease by continuing almost constantly in an horizontal posture; he had good and bad nights with some regularity.—on the latter, the motion of the heart was so languid, that he could not vary his position without the greatest caution; unless this was attended to, the circulation became confused, and, as it were, wholly carried on in one corner of the heart, which, at such times, beat with a "whizz." I omitted to mention that there was also "noise in the ear like dashing of water."

On dissection, the right auricle was much enlarged and very thin, "with strong marks of inflammation," and the right ventricle nearly transparent. On opening them they were totally void of blood, and "a considerable quantity of air rushed out." At the upper part of the right ventricle from between the columnæ carneæ there arose a broad concretion, adhering firmly to the columnæ, about the thickness of half-a-crown, of a light yellow colour, very dense consistence, and occupying about two-thirds of the diameter of the cavity—then it rose into the auricle, and thence nearly four inches into the vena cava superior, one into the inferior, and also into the pulmonary artery; the branches not so firm as the main body. Another small concretion of darker colour, and more tender consistence, arose from the columnæ carneæ of the left ventricle, passing into the aorta about $1\frac{1}{2}$ inch.

Such we may say broadly are the facts on which Dr. Hartly grounds two separate propositions:—first, that polypi of the heart exist as an idiopathic disease; and secondly, that the symptoms to which he and we have adverted are characteristic of its existence. Our own opinions on the subject may be of little consequence to others, but still, though perfectly open to conviction, we do entertain opinions. We believe that polypi may be formed in the heart for a longer or shorter time antecedent to death; but we do not consider that their existence as a distinct disease, *per se*, has yet been satisfactorily proved by Dr. Hartly, nor, so far as we know, by any one else. Such is our conclusion from the premises, but the means of judging for themselves are before our readers and the profession in general.

We have said that polypi may exist in the heart, for a longer or a shorter time antecedent to death, and all who are practically conversant with morbid anatomy will allow that the period must be very various, its ascertainment extremely difficult. As a general law, we may assert that when patients are long in *dying*, polypi, presenting more or less of the appearances of maturity and age, will be found in the chambers of the heart. From simple black coagulum, we pass through all grades of their formation till we arrive at the brownish-red, lancellated substance, adhering firmly to the walls of the heart, almost apparently organized, even containing in its centre what has been, perhaps improperly, considered as pus. It cannot then be doubted or denied that polypi may be and are formed before the dissolution of the

patient. Of the law which determines and regulates their formation we know little, but of the circumstances under which they are found we know more. They are witnessed in those who have been long in the agonies of death, who have been gradually sinking for hours or for days. A disease may be rapidly fatal and yet the act of dying may be long; a disease may be slowly mortal, and yet the final struggle may be brief. So far then, as we have seen, polypi have presented the characters of perfection and duration in proportion to the period during which the patient was sinking, and we think we have remarked that they are more mature when much depletion has been used. Supposing this last observation correct, it would be readily explicable on the ascertained principle, that blood-letting promotes the coagulation of the blood.

It may be asked, if we have any determinate symptoms produced by these formations. Now it is a singular and important fact, that of all who assert the existence of polypi as an independent disease, no two agree in the symptoms which they assign to it. Senac, Laennec, Bertin, differ; Mr. Cheston said a noise in the ear was the sign, Dr. Harty pronounces that it is a thrilling in the arteries. When none agree, common sense whispers that probably all are wrong. Dr. Harty endeavours to prove the inaccuracy of all former diagnostic marks; we will urge an objection or two to his; and then it remains for the next author to advance *his* certain sign, to be overthrown in a similar manner. A fact, to be admitted, requires two sorts of proofs, positive and negative. Let us test Dr. Harty's in this manner. In the most marked instance of polypus formation in the heart which we ever witnessed, we can positively assert that there was no thrilling whatever in the arteries. This is negative proof against Dr. Harty. Secondly, the peculiar thrilling in question is present in many cases of external aneurism, can be felt in all the tangible arteries of the body, and not unfrequently disappears altogether after the operation. It is also observed in hypertrophy of the heart and a roughened state of the coats of the aorta, and may exist for months and years. We have felt it in rheumatic pericarditis, diminishing or subsiding with the subsidence of the attack. This looks very like positive proof against Dr. Harty.

On the whole then, in the present state of our knowledge, it is safer not to consider polypi as a distinct disease, it is wiser not to pronounce upon their symptoms. When a patient is long in dying, that is, sinking, we may suspect that, they will be discovered, but farther than this our positive information scarcely extends. We do not wish to dogmatize. Dogmatism is the test of error, the foe of truth. But rational scepticism is better, in all cases of inductive reasoning, than easy confidence or hasty faith.

XI.

ON DYSENTERY, ITS FORMS AND CONSEQUENCES, IN WARM CLIMATES,
ESPECIALLY IN INDIA. By *James Annesley, Esq.*

[Vol. II. of Diseases of India.]

WE have reason to lament, in common with the profession generally, but more especially those who are scattered over our Indian possessions, that the inestimable work of Mr. Annesley was not published separately from the plates, and consequently in a form that would have insured these extensive volumes an extended circulation. Had it not been for the medium of this Journal, the volumes might almost be said to be buried; but we have endeavoured to diffuse a great portion of the valuable materials with which they are fraught, through both hemispheres, and shall not cease till our object is accomplished. We have brought our analysis up to about the third of the second volume, where the important subject of dysentery is taken up by the experienced author. We need not advert to the importance of a malady which forms the prominent feature of tropical diseases, and carries off more Europeans than any other form of disease whatever. The author treats first of the simpler or less complicated forms of dysentery—then of that variety which is characterized by attendant hepatic disorder—and, lastly, of the chronic forms, and on scorbutic dysentery.

SECT. I. ACUTE UNCOMPLICATED DYSENTERY.

Collections of excrementitious matters, Mr. A. thinks, form one of the earliest pathological states which give rise to acute dysentery, by irritating the mucous membrane, and inducing inflammation, followed by ulceration and even sphacelation, if the case be neglected.

“In a great many cases, this form of dysentery is preceded by a constipated state of the bowels, often of long duration, especially among persons who have recently arrived in India. To this condition frequently supervenes mucous diarrhœa, attended with pains of the abdomen, coming on at intervals, and generally preceding the alvine evacuations. This form of diarrhœa may continue for two or three days, passing gradually into dysentery, with all the characteristic signs of the disease. In a few instances, especially when the evacuations are copious, the diarrhœa subsides, and the patient recovers without experiencing, at least for that time, a true dysenteric attack. This result seems to arise from the irritation produced upon the mucous surface of the large bowels by the fecal accumulations having subsided, in consequence of the irritating matters having been removed, and of the copious secretion which had taken place.

Frequently, the dysenteric symptoms are present from the first hour at which the patient complains, the stools being then scanty, mucous, streaked with blood, and attended with abdominal pain and tenesmus. In cases of this nature, the increased action of the muscular coats of the bowel, especially about the sigmoid flexure and rectum, prevents the passage of the fecal collections through their canal, and, in many cases, occasions a complete obstruction, little passing away but the perfectly fluid secretions. In cases of this description, if the disease be not early subdued by very decided treatment, sloughing of the

mucous coat often takes place, followed by involuntary motions, when the fecal accumulations at last come away, such parts of them, at least, as have been dissolved being washed off by the watery secretions poured out from the irritated vessels of the inflamed surface." 153.

Believing this form of dysentery then to be essentially an inflammatory disease, whatever its cause, our author takes occasion here to dissent from the late Mr. Bampfield in respect to the subdivisions of the disease which that gentleman adopted. "The mild, the severe, and the inflammatory varieties which he has marked out, are, in our opinion, nothing more than varying degrees of the same, or nearly similar pathological states, proceeding from the extent to which the inflammatory action may have *supervened*, from the susceptibility of the system to sympathize with the local disease, and from the peculiarity of individual constitution. There is no line of demarcation by which these varieties can be separated from each other in practice."

Viewing the acute and uncomplicated form of dysentery, then, as an inflammation limited chiefly to the cæcum, colon, and rectum, Mr. A. proceeds to paint its various degrees of intensity, as presented in practice among recently arrived Europeans, in older residents, and among the natives. We shall here introduce the description which he draws.

"Simple dysentery in its least severe forms, generally commences with frequent calls to stool, the motions being scanty, mucous, gelatinous, streaked with blood, and accompanied with pain and tenesmus. At first the pain seems chiefly limited to the rectum, occasional gripping pains being only felt in the abdomen. The tongue is often but little affected, farther than being white and loaded; the pulse sometimes at the beginning not materially accelerated, but it generally soon becomes affected to an extent varying according to the habit of the patient and severity of the disease. If the disorder be not subdued in this early stage, all the symptoms become more acute; the pain in the abdomen increases in severity and is more constant, yet, in many cases, little or no pain is complained of, excepting at the time when the patient is passing a motion, although the stools are of the most morbid character, and the disease altogether of the most severe form. This, however, ought not to be imputed to the absence of inflammatory action; for the mucous surface of the cæcum, colon, and rectum, may be inflamed, and indeed, in a state of ulceration, and yet but little uneasiness, even upon firm pressure of the abdomen, is apparently felt. This seems to be owing to the varying degree of excitability and sensibility with which the human frame is endowed, and, perhaps, to some modification in the condition of the diseased parts, beyond the detection of our unaided senses. Yet, in many cases, where pain is either entirely absent, or but little complained of, a sense of heat in the abdomen, especially in the course of the colon, is very generally felt. When this symptom is present, it ought always to be recognised as indicating the existence of inflammation of the mucous surface of the bowel. A similar inference ought also to be deduced from a sense of soreness in the abdomen. This symptom is very often present in all the stages of the disease, and always indicates great irritation of the mucous surface. It frequently accompanies the sensation of heat, or supervenes to that symptom. (See the case of Thomas Morgan, at the end of this section.)

As long as the disease is limited to the mucous lining of the large bowels, the patient seldom feels more than a sense of heat, or a dull aching pain, not increased on pressure, which he usually describes as being heavy, and shooting at times through the whole abdomen: but when the cæcum is minutely examined, pain, to a greater or less extent, is always felt, and, perhaps, some degree of fullness, even when pressure over the transverse

arch of the colon occasions no uneasiness. If the left side of the abdomen, beneath the ribs, be grasped in the hand so as to embrace the descending colon and sigmoid flexure, pain is sometimes felt, but not always; but when the right side is similarly grasped, so as to press upon the cæcum in opposite directions, then pain is almost always complained of. If the practitioner takes the patient's report without further examination, in cases of this description, he will often be misled.

As the disease advances, the stools usually become still more frequent, the tenesmus more severe, the discharges of blood greater and often more intimately mixed with the matters evacuated, which gradually pass from a mucous, slimy, and gelatinous character, to a more watery appearance, of a dark colour, with a muddy solution of feculent matters, and sometimes with considerable discharges of feces. The urine is now, and often early in the disease, of a high colour, voided frequently and attended with scalding. Sometimes complete strangury is present: this is owing to the intimate connexion subsisting between the urinary organs and the seat of disorder. The tongue becomes more loaded and excited; the pulse more accelerated; and the skin harsh, hot, and dry. Tormina also, and the straining, increase; the calls to evacuation become more incessant, especially during the night, when the general febrile symptoms also are augmented.

When the straining and tenesmus are very urgent, we may then consider the rectum to be very remarkably inflamed: indeed, we know not of an instance where such a state was not evident when these symptoms were present. If tenesmus be very severe, in any particular instance, and if the patient presents but little abdominal fulness or tension,—if he complains but little of tormina, or of heat and soreness in the abdomen,—if he can bear pressure without uneasiness being produced about the region of the cæcum and sigmoid flexure of the colon,—we may then consider that disease is chiefly seated in the rectum, and that the large bowel is comparatively exempt, or at least much less affected than the rectum. But although this inference may be drawn, especially if there be little constitutional disturbance present, we ought not to depend upon it with certainty, and we should never allow it to seduce us into the adoption of weak measures of cure.

We have often seen the most extensive ulceration in the cæcum and colon, and yet the patient had not complained of tenesmus, the rectum having been comparatively sound. (See the case of Thomas Dunn, detailed at the end of this section.) And we have seen tenesmus to a great and distressing degree, the colon, throughout its extent, being, upon *post mortem* examination, found little disordered, and the disease confined to the rectum. From these circumstances, therefore, we have during the latter years of our practice, especially when tenesmus has been urgent, considered it merely as characteristic of disease of the rectum, although frequently an attendant upon dysentery, and treated it accordingly, whether it arose at the commencement of the disease, or during the advanced stages." 157.

We shall not follow the author in his remarks on dysentery as it affects the natives of India. In them, as might be expected, the disease assumes lower or more asthenic form, though the appearances after death, are nearly the same in both classes.

In simple acute dysentery, the number of calls to evacuate the bowels varies from ten or twelve, to thirty or forty times in the twenty-four hours—many of the stools being merely a small quantity of mucous and blood—some of them more copious, and consisting of various morbid secretions as well as excretions. These fluid motions rapidly exhaust the strength of the patient. These watery evacuations, Mr. A. thinks, are indicative of "the lodgment of acrid matters in the bowels requiring to be removed by purgatives at the commencement of the attack." Of this we have some doubts—

The author indeed tells us immediately afterwards, that, "in some cases, the disease seems to commence in the rectum, &c." The appetite is sometimes so little impaired in simple dysentery, that ulceration of the intestines has taken place before food was loathed. But food generally produces great uneasiness in the line of the bowels, even where the appetite is unimpaired. After a number of minute and rather tiresome observations on various phenomena presented by the disease in question, Mr. A. proceeds thus:—

"Besides the appearances of the stools already pointed out, there are others which are less constant, and which deserve notice. The evacuations are sometimes of a singularly variegated hue, consisting of a glairy mucus, mixed with a greenish, gelatinous substance, sometimes with pure bile, at other times with a muco-purulent matter, with large pieces of albuminous-like concretions formed upon the internal surface of the bowel and afterwards detached, and either with streaks of fluid blood, or with dark coagula, more or less intimately mixed with the other matters discharged. Blood is occasionally evacuated in very large quantities, fluid, and distinct from the other matters composing the evacuation; it then flows from the lower parts of the large bowels. When consisting of coagula, and of dark, grumous clots intimately mixed with the discharges, we may consider it as having proceeded from the upper parts of the colon, or from the cæcum itself. The discharge of pure blood sometimes takes place early in the disease, and continues to its termination in death (see James' case); but this intestinal hæmorrhage is seldom of a florid hue: it most frequently presents the venous character, and occasionally a dark-brown, muddy appearance, mixed intimately with watery, feculent, and offensive dejections. The copious sanguineous discharge may or may not proceed from an ulcerated surface. We believe that it most frequently exudes from the irritated mucous surface, and that the latter description of discharge is characteristic of ulceration, and occurs most frequently in persons who have neglected the state of their bowels, or who have indulged in the intoxicating liquors of India, which are so destructive to soldiers." 163.

The mucous membrane of the rectum or colon is sometimes detached, in the latter stages of the disease, and discharged per anum in a tubular form. Most frequently, however, these membrane-looking tubes are exudations of coagulable lymph thrown out upon the inflamed surface of the bowel. When dysentery has advanced to the most unfavourable stage, the stools are streaked with purulent or sanious matters, evidently proceeding from ulceration of the bowels. We pass over a great mass of cases, and tedious details that are spun out to an immeasurable length, when we come to a section on—

HEPATIC DYSENTERY.

This is a form of the disease remarkably prevalent in India; consequently, its nature and treatment are of the utmost importance. This species of dysentery assumes various forms—is sometimes acute, sometimes sub-acute—or chronic. The more acute forms are generally accompanied by an affection of the liver, and a highly vitiated condition of the biliary secretion—while the chronic forms are attended by abscess and other organic changes of that viscus. Mr. Annesley does not attempt an explanation of this connexion of hepatitis and dysentery, nor to the precedence of one in respect to the other. The two phenomena, indeed, are often so coeval, that it is difficult, or rather impossible to ascertain the priority of one or the

other. While wading through many pages of heavy quarto, presenting loads of the most insipid verbiage, and where the everlasting word "*super-rene*" occurs in almost every sentence, we have been unable to find a passage to extract, or matter for condensation in our own language. What could infatuate Mr. Annesley to dilute his facts with such an ocean of words?

"In many cases of hepatic as well as of simple dysentery, the patient presents, for a day or two, many of the symptoms particularized in the section on the premonitory signs of disease contained in the First Volume of the Work, page 209. But this is not uniformly the case. The countenance is often pale, the skin cold, with horripilation, sickness, and loss of appetite, and a disordered, costive, and irritative state of the bowels. The patient often, at the same time, complains of a sense of chilliness, coldness or uneasiness in the back and lumbar region, running down the sacrum, sometimes as far as the anus, with gripping pains through the abdomen. These symptoms, however, seldom fall under the observation of the practitioner, unless he makes it a duty to enquire particularly into the condition of the men under his charge during health; for it is not generally until the phenomena pathognomonic of simple or complicated dysentery are fully developed, that medical advice is sought after. In those cases of hepatic dysentery in which the complication is immediate, or disease nearly coeval in both organs, the premonitory signs now noticed are often well marked, the gripping pains extend through the abdomen and hypochondria, and are sometimes attended with vomiting, a sense of fullness and oppression at the præcordia, lowness of spirits, and slight dyspnœa.

At the commencement of this particular form of the disease, and generally following the above symptoms, the alvine dejections become frequent, and at first are usually copious, but morbid, both in colour, consistence, and odour. At this period they are very seldom either mucous or bloody, but they are generally very dark, crude, and offensive. As the disease advances, they vary daily, but are generally green, bottle-green, greenish brown or black, mixed with venous blood; sometimes slimy and watery, with a greenish frothy slime on the surface; rarely clay-coloured, and not unfrequently, especially in the advanced stage of the worst cases, reddish brown, ochre-like, or consisting chiefly of water, with blood more or less intimately diffused through it. The motions vary in frequency and in character, according to the stage of the disease and the treatment adopted. There is generally urgent tenesmus present, with scalding of the anus, and often *prolapsus ani*. The calls to stool are more frequent during the night, and attended with more or less irritative fever and restlessness. Sometimes the blood is so very intimately mixed with the other matters forming the alvine evacuations, that it must have proceeded either from the superior portions of the alimentary canal, or from the liver itself. But this is an appearance observed chiefly in the far advanced stage of the disease, when also the evacuations often resemble the washings of raw meat, and present nearly similar characters to those marking the last period of the simple form of the disease. The urine is generally in very small quantity, high-coloured, muddy, and evacuated usually with pain and difficulty.

In addition to this state of the alvine excretions, the patient generally complains of a fixed pain, weight, or uneasiness, in the pit of the stomach, increased on pressure, and frequently extending to the right hypochondrium, and beneath the right scapula. There are usually also present tension, and a sense of pressure at the hypochondrium, with anxiety at the præcordia, fits of dyspnœa, occasionally pain in the right shoulder, or in the chest, with a dry, teasing cough, headach, giddiness, sickness at stomach, sometimes vomiting, and great depression of spirits. The pulse is generally accelerated and irritable, especially towards night.

The appearance of the tongue is various in different stages of the disease, and in different cases; in the early stages it is generally white, excited, and covered with a yellowish

fur. As the disease advances, the tongue either becomes dry, clean, smooth, red, and lobulated, or excited, dry, and covered at the root particularly with a dark crust. The skin is sometimes dry, harsh and of a dirty appearance; occasionally it is covered with a greasy perspiration, and copious sweats often occur through the advanced periods of the disease. There are also frequent thirst, and great desire of cold fluids. In other respects, the progress of hepatic dysentery is much the same as the simple form of disease already described; but it presents, in general, a greater range or variety of phenomena in different cases, and even in the same case, in different stages of the malady." 209.

In the more chronic examples of hepatic dysentery, as connected with abscess, the matter not seldom finds its way into the alimentary canal, through adhesions previously formed—or perhaps through the ducts themselves.

"The symptoms of the chronic forms of hepatic dysentery are more mild; tormina and tenesmus are not severe, if at all complained of. Little or no pain is felt, even upon pressure, in the course of the colon; but the alvine evacuations are always more or less unnatural, and present appearances either of a morbid state of the bile, or of a deficient or obstructed secretion of this fluid. The calls to stool are also not so frequent as in the acute cases; but there are present great debility, depression of spirits, and sinking of the powers of life, particularly in those who have been addicted to intoxication.

In cases of hepatic dysentery, a dirty appearance of the skin, sallow cast of countenance, attended with an expression of anxiety and great depression of the spirits, are very generally present, and may often be relied upon as evincing disease of the liver, even although pain, weight, and tension at the epigastrium, præcordia, right thorax, and hypochondrium, may be wanting. The presence, however, of these latter signs, in addition to the former, and to the symptoms described as characterising the progress of simple dysentery, is distinctive of the associated disease of both organs." 211.

Under the head of Etiology, Mr. Annesley presents us with some documents indicative of the terrible ravages which dysentery occasions among European sojourners in tropical climates. Thus we find that, during a series of years, when the troops were not actively employed in the field, the annual rate of nominal admissions in hospitals (Bengal army) was 35 per cent. of the effective strength, while the annual rate of mortality was 5 1-2 per cent. in the nominal admissions. In the Madras army the rate of mortality was 8 per cent. though the rate of admission was only 27 per cent. Malaria and atmospheric vicissitudes are looked upon, and, no doubt, with justice, by Mr. A. as the chief agents in the production of dysentery, with intemperance and some other causes as auxiliaries. We must pass over a great mass of observations on the etiology of dysentery, which might be useful in an elementary lecture on the subject, but would be misplaced here. They are deserving of attention among those who reside in the East, though few of them can have access to the work, on account of its price and size. We must now proceed to a subject interesting to all classes of our readers.

POST-MORTEM APPEARANCES.

In those cases where the termination is rapidly fatal, sphacelation of the mucous membrane of the colon is generally observed, with portions of the same inflamed, or ulcerated. Without insisting that inflammation is the primary link in the morbid chain, Mr. Annesley maintains that it is a *sine qua non* in the complete establishment of the disease.

"It is extremely probable that the inflammatory action has been occasioned by some irritating cause lodged in the *prima via*, inducing simple irritation, in the first instance, of the capillary vessels and exhalants of the mucous coat of the large bowels, or by other causes acting upon the body from without, and producing a determination of the circulating fluids to the same situation, and a similar condition of the vessels; but in whatever way it may originate, there can be no doubt that inflammatory action is, in the acute form of the disease especially, almost coeval with the dysenteric character of the stools; and the treatment which is founded upon this view will generally be the most successful in combating this disease as it is observed in warm climates. But whether dysentery originates in simple irritation, attended with increased exhalation, and terminating in acute inflammation of the mucous surface of the large bowels, or consists of inflammation of this surface from the commencement of the disease, is a question which cannot be solved by *post-mortem* examinations. Both these pathological states may be present in different cases, and may depend upon the causes producing the disease, and the constitution of the individual affected: from their nature they may be expected to produce analogous symptoms, and such as we observe generally to characterize the commencement of dysenteric affections.

Upon opening the abdomen of fatal dysenteric cases, the first object which generally attracts attention is the state of the omentum. This part is frequently inflamed, owing evidently to the extension of the inflammatory action to the peritoneal surface of the large bowels, and thence to this part. Sometimes it adheres, through the medium of coagulable lymph, to the more superficial convolutions of the bowels, at other times to the anterior part of the brim of the pelvis, or even to both; more frequently it is drawn up irregularly to the arch of the colon, and occasionally it seems wrapt close up to this part of the large bowel. Sometimes it is drawn to one side, and adheres both to the colon and to the abdominal parietes. These appearances are the more marked, if the ulcerations in the large bowels, which we shall have immediately to describe, have perforated the bowel, so as to occasion the extravasation of its contents into the peritoneal cavity, thereby producing general peritonitis; and when the dysentery has been complicated with hepatic disease.

With respect to the external appearances of the large bowels, it will be necessary to premise a few remarks before we proceed to describe the state of their internal surface. Sometimes these viscera present no external marks of disease to a superficial observation, and yet they will be found extensively disorganized when laid open. We suppose that it has been owing to their apparently healthy condition externally, that we so frequently have been furnished with accounts of a natural state of the large bowels having been observed in dissections of fatal cases of dysentery. The inference, to our minds, upon reading such accounts, is, that the individuals who furnished them have not inspected the seat of the disease which they had been attempting to investigate. Even when the colon is not remarkably diseased in its external surface, it generally presents one or more of the following states:—It is usually more or less distended with flatus. The colour of its surface is various in different cases, and the shade different in different parts of the same bowel. Upon grasping the viscus, and running the fingers along it, a different feeling is communicated to the touch in distinct parts of it: at one place it is thickened and doughy, in another, thin and membranous. In one part the general shade of colour externally is a bluish-grey; in another, a greenish-blue: in one case it is verging to purple; in another it is pink: sometimes it is obviously inflamed in its serous covering, the capillaries distended with blood, running in all directions, and forming a close reticulum in its surface; occasionally the colour of the surface is quite natural, and the peritoneal covering possessed of its natural diaphanous appearance.

The shades of colour presented by the cæcum and colon externally, although frequently depending upon, or having some relation to, the states of the internal coats of these

viscera, yet sometimes have no such dependence: thus we have observed, in cases where the peritoneal surface was the most pale, the internal or mucous surface of the bowel was most deeply diseased, of the darkest colour, and either sphacelated or extensively ulcerated. In other cases, where this viscus was externally of the deepest colour, varying in some parts from a brick-red to a reddish-brown or deep purple, the internal surface has sometimes presented less than usual marks of disease in those situations. Hence, although the colour of the bowel externally may frequently depend upon the state of disorganization existing internally, yet no such connexion should be necessarily expected.

Displacements, elongations, and unnatural convolutions of the colon, are not infrequently observed in dissection of dysenteric cases. These have been already noticed; but we may further observe, that they are generally connected with some degree of relaxation of the longitudinal bundles of fibres which draw the colon into a sacculated form when in a state of contraction, so that the bowel in those states seldom presents many of those deep circular folds which form its cells; or they exist only in a small degree. In the majority of cases wherein displacements or elongations of the colon have been remarked by us, its peritoneal surface has been inflamed in parts, particularly that portion which was displaced. This is shewn in several of the Plates, where coagulable lymph may be seen covering the displaced portions, and connecting their surfaces either to each other or to adjoining parts, and sometimes to both. Amongst the most frequent displacements of the colon remarked, are,—first, a loop of the sigmoid flexure descending low into the pelvis, close to, sometimes adhering to, the urinary bladder and rectum, and explaining the disorder of the urinary function remarked through the progress of the disease; second, the descent of the transverse arch of the colon, generally towards the right side, nearly as low as the pubes, as represented in the Plates." 259.

Sometimes the cæcum and colon are distended with fetid flatus, and the caliber of the bowel every where increased. In many cases, however, the distentions are partial, and there are many constrictions. The constricted portions are sometimes very limited, and appear as if a ligature had been tied round the gut—in other cases they occupy a considerable extent.

"The constrictions in some cases seem to be chiefly the result of a spasmodic action of the circular fibres of the part affected, owing to the irritation and inflammation of the internal surface. In other cases they seem to be of a more permanent nature; although most probably at their commencement they were the consequence of spasm. When the parts contracted are also found externally inflamed, thickened, and hardened, and in a semi-cartilaginous state, as they frequently are in the more chronic cases, their nature cannot be mistaken; and they must be viewed as one of the results of a slower state of inflammatory action, or of acute inflammation terminating in the chronic form; they are also very often the effect of repeated attacks of the disease. Sometimes the constricted portions of the bowel are remarkably inflamed externally, and occasionally they present in the peritoneal surface no very evident appearance of inflammatory action; although, internally, both inflammation and its consequences are present to a great extent. The narrow constrictions, as if from a ligature, are those which least frequently offer an inflamed appearance externally.

When the constrictions tend nearly to efface the canal of the bowel, the part above is usually much distended, and in some cases the coats of the distended portion are lacerated, and the contents of the bowel effused into the peritoneal cavity. The laceration seldom takes place in a sound part of the bowel; it generally occurs, or at least commences, in a part which has been ulcerated internally, and softened by the existing inflammation. The laceration of the distended part of the bowel is mostly soon followed by the death of the

patient, but seldom before evidences of general inflammation of the peritoneal surfaces have been produced by the effused matters, and the bowels are glued together by coagulable lymph; and albuminous exudations, with a turbid serum, are poured out into the abdominal cavity. Sometimes the lacerated portion of the bowel is situated below a constricted part. When this is the case, there is always found a still more constricted portion below the laceration, which is situated in a more or less distended part of the bowel; although, after the laceration has taken place, the extent of the previous distension cannot be ascertained. In addition to the contractions and constrictions of the colon, the parts thus diseased may be still farther deranged: they may be very closely adhering to adjoining viscera, or pressed upon by parts morbidly distended; or they may form very sharp turns and convolutions, tending still further to obstruct their canals; or they may be encumbered by large effusions of coagulable lymph upon their external surface, forming bands or artificial ligatures in the processes of condensation and adventitious organization, which these effusions often experience when life is prolonged for any considerable time after they first take place. Similar appearances are also observed in respect of the distended parts of the bowels, as shewn by several of the Plates accompanying this Volume." 261.

When the inflammation of the mucous membrane has proceeded so far as to implicate the peritoneal covering, post-mortem examination discloses great vascularity of the latter tunic, sometimes amounting to a purplish hue, with agglutination of the adjoining surfaces, and of the intestines to the liver and other contiguous organs. We now revert back to the state of the internal surfaces.

"In almost all cases of ulceration of the large bowels, the parts ulcerated are softened or more friable, so that they are readily torn upon forcible extension; and if the parts situated between the ulcerations be inflamed, as they generally are, they are also lacerated with ease. Want of the cohesion characteristic of healthy textures seems to be generally present in nearly all instances of the disease accompanied with acute inflammation, or any of its consequences.

Besides the general appearances characteristic of inflammatory action, or resulting from this state, which we have now described, the coats of the large bowels seem much thickened. This is particularly observable in the subacute and chronic cases of the disease. A certain degree of tumefaction or fulness of the inner coats of these bowels seems to depend upon the inflammatory state, and to arise from the general injection of the vessels, and effusion of fluid in the cellular tissue connecting their various coats. A thickened condition of the large bowels is, however, not uniformly remarked: in some few cases their parietes seem thinner than they are even in the healthy state, and are, at the same time, ulcerated to a greater or less extent. Occasionally, one part of the viscus is evidently thinner than natural; whilst another portion is much thickened and as if corrugated, as in Plate XXXIV. fig. 1.

The colour of the internal surface of the large bowels varies very much in different cases, as well as in the same case. In some it is of a very deep red, streaked transversely, and dotted in parts with a darker tint; the edges of the deeper ulcers, and the centres of those in the incipient stages, being of a still darker colour. Sometimes, intervening between large portions of deeply inflamed and ulcerated colon, the mucous surface presents a pale, greenish-yellow hue, with or without small specks of ulceration, as in Plate XXXVIII. Occasionally, the intensely red colour is variegated by the different shades presented by the slight duplicatures and corrugations of the mucous surface of the bowel, and gradually passes into a yellowish or vermilion-red, and thence into a darker shade indicating the transition to the sphacelated state, as shewn in Plate XXXIII. In some cases, nearly the whole of the mucous surface of the cæcum and colon is of a

greenish hue, and presenting every depth of shade, from a pale grass-green to an olive colour; in some parts the deeper shades of green are interspersed with patches of a fine rose colour: in these latter the mucous tissue possesses its natural organization, whilst in the former its cohesion and structure are entirely destroyed, and it is in all respects in the first stage of gangrene." 266.

Our author remarks that, in the complication of hepatic disease with dysentery, in hot climates, "the association of structural changes of the liver with disorganization of the large bowels is constantly observed." It would be very strange were it otherwise. Mr. A. admits, what had been inferred by writers long before him, that the vitiated secretions from the liver are probably a material agent in exciting inflammatory action in the intestines.

TREATMENT OF DYSENTERY.

The rapid march of dysentery in hot climates requires rapid and active treatment; and in no disease is the utility of remedies, when early and judiciously employed, more conspicuous than in this disease. Unlike many maladies of temperate climates, dysentery is hardly capable of natural solution. On the contrary, it naturally tends to disorganization, if neglected.

The first indication, in uncomplicated dysentery, is to empty the bowels, and the second to guard against inflammation. The other indications are considered as subordinate.

"If the patient comes under our care when the premonitory symptoms of disorder are present,—when the bowels are first disordered, and he complains of chills followed by slight flushes, coldness of the back and loins, &c.,—the exhibition of an ipecacuanha emetic, followed in a few hours by twenty grains of calomel, and this in two or three hours more by a purging draught and an enema, is often of the greatest benefit. At this time also the warm bath is of great service, by determining the circulation to the external surface of the body and taking off spasm, whilst the evacuating remedies directed to the *prima via* unload it of those accumulations which are so frequently instrumental in producing the disease.

When acute dysentery is fully developed, and the patient complains of a sense of heat, burning, soreness, pain, tormina, &c. then depletion is absolutely requisite, and the sooner it is employed after the supervention of those symptoms, the more likely is advantage to be procured from it. The above symptoms are sufficient of themselves to require its adoption, if the pulse be but little accelerated and the patient not plethoric; and if he have been resident for a considerable time in the climate, local depletions, followed by hot fomentations or warm poulticing, when the leech-bites have ceased to bleed, will generally be sufficient. Depletion to a great extent, or at least to a sufficient extent, may be practised in this way. But if the patient has recently arrived from Europe, if he be of a full habit, if the pulse be full, hard, and irritable, if the tormina be violent, and pain fixed and increased on pressure,—a full blood-letting from the arm should always precede the application of leeches to the abdomen." 273.

The repetitions of blood-letting must depend on the judgment of the practitioner. In addition to depletion, general or local, Mr. A. endeavours to procure free evacuations from the bowels. "With this view, 20 grains of calomel, combined with one or two of opium, should follow the first depletion, and, a few hours afterwards, a purging draught assisted by an in-

jection should be administered. The previous exhibition of the calomel and opium allays the irritability of the stomach, if this symptom be present, removes spasm, and prepares the morbid secretions of the liver and bowels for removal by means of the purgatives which are to follow." By the above passage, it will be seen that the plan laid down twenty or thirty years ago by writers on tropical climates, and by the Editor of this Journal in particular, continues to be the standard practice up to this hour. The above plan is almost verbatim et literatim what was acted on during the late war in India, and with the best success. We do not quite agree with Mr. Annesley, however, in his inveterate desire for purgation in dysentery; because we are very far from believing that the retention of faecal matters in the cells of the colon constitutes the sole, or even the principal cause of the tormina and other phenomena of dysentery. Nevertheless, the plan pursued by our author will be generally successful; because the exhibition of the calomel and opium previously to the purgative, corrects any bad effects that might result from the purgative plan if pursued by itself. Tepid and warm bathing, after the antiphlogistic measures, is an important auxiliary—as are blisters and local fomentations to the abdomen.

"In the far advanced stage of the disease, after the above measures have been employed without deriving from them those advantages which they are calculated to afford, and generally do afford; or when the patient has been neglected or injudiciously treated at the commencement of the malady, the existence of ulceration of the large bowels, either in its incipient or farther-advanced stages, should be dreaded; but we ought not on that account entirely to despair of the recovery of the patient, although an unfavourable termination is more likely to supervene. We have known many cases of recovery wherein the symptoms clearly indicated the existence of ulceration; and even after large portions of the mucous surface of the large bowel had been detached and evacuated with the discharges. Until unequivocal signs of approaching dissolution are present, our means of cure should be administered zealously and unremittingly, and be judiciously selected and applied, according to the symptoms which may supervene.

At this period of disorder, the warm bath; blisters over the abdomen; emollient, mucilaginous, and anodyne enmata; small and frequently repeated doses of Dover's powder; injections of the infusion of ipecacuanha with opium, or of a weak infusion of bark and rhubarb; warm poultices over the abdomen; the use of the diaphoretic mixture already noticed, the infusion of catechu given internally or as an enema; and camphor, with ipecacuanha and opium, are often very serviceable. When there is evidence of morbid secretions and faecal matters still remaining at this stage of the disease, a full dose of calomel and opium may be given at bed-time, in addition to the employment of some of the above remedies, and followed early in the morning either by a full dose of the compound jalap powder taken in aromatic water, or of rhubarb and calcined magnesia. If either of those seem not to answer the purpose intended, a full dose of castor oil may be substituted for them." 233.

The treatment of hepatic dysentery does not differ, in any material point, from that which has been detailed above. There will be more need, however, of impregnating the system with mercury than in the simpler forms, in order to remove the hepatic disease. Upon the subordinate means of relieving particular symptoms in dysentery we need not dwell, as they naturally suggest themselves to every well informed practitioner.

XII.

TREATISE ON THE EXCISION OF DISEASED JOINTS. By *James Syme*, Esq. F.R.S.E., Surgeon of the Edinburgh Surgical Hospital, Lecturer on Surgery, &c. &c. 8vo. pp. 163. Edinburgh, Adam Black, 1831.

THOSE who have paid attention to the progress of modern surgery, will acknowledge that its advance has been by two different paths: in the performance of operations formerly unheard of, or considered impracticable; and, in the non-performance of operations formerly of very frequent occurrence. Limbs were amputated for diseases some twenty or thirty years ago, which are commonly curable without amputation now, and we think that this constitutes the truest, though the least obtrusive, glory of our science. The proper object of medicine and surgery is the alleviation of human woe, and this we conceive is better attained by dispensing, if possible, with the knife altogether, than by using it with the most consummate dexterity and success. Amputations have always been regarded with some feelings of disgust; it is a humiliating as well as a painful spectacle to see a limb lopped off for disease; it is, as has been justly remarked, a confession of our inability to cure, of the incapacity of our science. Any proposal, then, intended to mitigate the severity of this mutilation, should be candidly received and carefully examined. Undoubtedly its merits should not be blindly and hastily admitted, but neither should they be dogmatically nor obstinately denied. It is a pleasant and besetting sin in human nature, to refer the *cause* of all innovation to the arbitrary decisions of prejudice and habit.

For many years past a few surgeons have been successively struggling to drag into notice excision of some joints as a substitute on some occasions for amputation. As yet they have scarcely succeeded, but latterly the publication of cases in the medical journals has drawn a considerable degree of attention to the subject. Our readers need scarcely to be told that Mr. Syme has rather distinguished himself in this department; that, in fact, he has become the Coryphæus of the excising party in this country. He has previously given to the world detached papers and cases in reference to the question, and now he steps forward in the dignified garb of an octavo. As we believe that the surgical part of the profession are beginning to direct their serious attention to the advantages or otherwise of excision, we cannot do better than lay the substance of the work before them. As usual we shall analyze:

The first chapter which treats of the diseases of joints is not worth notice, but the second, in which are discussed the relative merits of excision and amputation, must give us pause. The following are our author's remarks on excision.

"The great recommendation of excision is, that it saves the patient's limb; and the benefits accruing to him from this are so important and conspicuous, that, unless the objections which can be urged against it should appear after mature consideration to be very serious indeed, we ought not to hesitate in giving it the preference. These objections, so

far as I have been able to ascertain, are the following:—*First*, The difficulty of the operation. *Second*, Its danger. *Third*, The useless condition of the limb in which it has been performed.

In taking into consideration the difficulty of the operation, it must be ascertained, in the first place, what is requisite to constitute its effectual performance: in other words, how far it is necessary to take away the diseased integuments, synovial membrane, articulating cartilage, and extremities of the bones. In cases of old standing, where the sinuses are numerous and the suppuration has been profuse, the integuments surrounding the joint often retain hardly any trace of their original appearance or structure. They lose their laxity and mobility, from effusion of lymph into the subjacent cellular substance; become smooth and shining on the surface, which is often of a dark-red or purple colour; and are so soft, that, if stitches are introduced to approximate the edges of an incision made in them, the threads instantly cut their way out. It might, therefore, be supposed that no healthy union or permanent cure could be obtained if parts in such a morbid state were allowed to remain, and that, consequently, the operation could very seldom be practised with propriety. Experience, however, has shown that this is not the case; and that in a very few days after the operation, when the swelling and inflammation immediately consequent upon it begin to subside, the diseased integuments regain their natural characters, and ultimately become perfectly sound.

As to the synovial membrane, Mr. Brodie has stated his opinion, that, when once its structure has been completely altered, it cannot be restored.* Independently of his high authority, it might be readily believed, that, if any of the thick gelatinous substance into which this membrane is transformed were permitted to remain, a cure could hardly be accomplished; and that, as this portion of the articular apparatus is not only very extensive, but likewise most intimately connected with the surrounding tissues, it must consequently be next to impossible to perform the operation of excision effectually. Experience here also, however, has decided the matter to be otherwise; and it is proved beyond dispute, by the facts hereafter to be mentioned, that the synovial membrane, though thickened and gelatinized to the utmost, affords very little obstacle to recovery, since it speedily disappears, partly by sloughing, but chiefly through the absorbent action of its own vessels, during the copious suppuration which ensues.

With regard to the cartilage, it might be expected that no harm could result from leaving any part of it that remained sound; but here, too, the judgment of theory is reversed by experience, since it has been found, that, when any portion of the articulating surface was left, the disease required a subsequent operation. The cause of this is probably to be referred, not so much to any morbid process in the cartilage itself, as in the synovial membrane lining it, and in the spongy bone immediately subjacent, which has its tendency to morbid action excited by the injury sustained in its neighbourhood. The operation, therefore, essentially requires the removal of the whole cartilaginous surface.

Lastly, as to the bone, one not acquainted with the pathology of the osseous tissue, who examined the bones of carious joints after maceration, might be apt to suppose that the diseased part could not be removed without sacrificing so large a portion of the whole, as to render it useless and unworthy of preservation. Plate 1. Fig. 1, will illustrate this. The bones represented here are those of an elbow-joint, which I amputated before adopting the plan of treatment now under consideration. It will be observed that they are much increased in thickness to a considerable distance from the articulation, and that their surface in the whole of this extent is covered with irregular warty excrescences, which give it a rough tubercular appearance. When these tubercles are examined more particularly, they are found to consist of a compact osseous substance, which is smooth on the surface, and per-

* Vid. Op. et loc. cit.

forated with numerous apertures for the transmission of blood-vessels. This is new bone and perfectly healthy in its actions; it resembles in all respects the callus, or new osseous substance, which effects the reparation of fractures, and is thrown out in consequence of the irritation of the disease. The truly morbid or carious portion of the bone is seen between the lines AA and BB, occupying merely the articulating surfaces. The external shell of the spongy bone is here removed by the disease, and the cancelli are exposed to view, presenting a rough surface composed of rigid plates and spiculæ, which are white and more brittle than usual, so as to seem as if they had been subjected to the action of fire. The depth to which the bone is thus affected varies considerably, according to the origin of the disease. When the morbid action commences in the synovial membrane or cartilage, it is generally superficial; but when the inflammation is primarily seated in the substance of the spongy bone, as in the third kind of white-swelling which has been mentioned, then, as has been already stated, the substance of the bone is more deeply affected, being often excavated into a hollow, which is carious over the whole of its surface. The extent of this cavity seldom, or rather never, exceeds the bounds of the epiphyses, except sometimes in young subjects, where the bone has been widely altered by scrofulous action, previous to suffering the inflammation which more immediately occasions the caries. From not distinguishing between the truly diseased bone and that effused in consequence of its irritation, it appears that a much larger portion has been taken away in some of the cases of excision hitherto published than there was any occasion for. Less than a half of the portions of the humerus and femur which were removed by Moreau and Crampton, I should certainly think, so far as can be judged from the evidence of their drawings, would have been sufficient for the purpose, in which case it is plain the limbs would have been much less shortened and weakened, and the magnitude and consequent severity of the operation diminished. As already stated, the caries seldom goes beyond the epiphyses, which are all the part of the bone that the surgeon requires to remove, except in the rare cases where the bone is found to be more extensively affected; and in these it will probably be most prudent to perform amputation." 22.

From this analysis Mr. Syme comes to the conclusion, that all essentially required in the operation is the removing of the articulating epiphyses. With regard to the means of performing it, Mr. S. gives the preference to Mr. Liston's cutting pliers, whenever the ordinary saw is not applicable. The difficulties of the operation are certainly sometimes considerable; but they are such as can be surmounted by a moderate share of dexterity and coolness. The danger of excising a diseased joint is, for obvious reasons, not to be compared with that of opening into a sound one. Patients have been observed to sleep better the night after the operation than for a long time previously. From a consideration of all the circumstances, Mr. S. thinks it not unreasonable to conclude that the danger from amputation is greater than from excision, and this conclusion appears to be borne out by facts. Mr. S. has cut out fourteen elbow-joints, and the operation has been performed in Edinburgh three times by other practitioners. Of these seventeen cases two only have terminated fatally, and in one Mr. Syme believes that the patient would have died from any operation, while in the other the disease was found so extensive as to render the excision almost impracticable. He believes that the result of seventeen amputations in similarly unfavourable constitutions would not be so satisfactory. Here we cannot refrain from remarking that the operation of excision appears to be too frequently performed in Edinburgh. At a large hospital in London we have not witnessed seventeen amputations for diseased elbow in the course of many years, and yet we need hardly say that great numbers of such cases have been treated at the institution. The majority of patients thus affected have done well without any operation. They have had more or less ankylosis it is true, but still we presume that the warmest advocates for excision will scarcely

prefer its risks and consequences to ankylosis without an operation at all. We cannot but suspect that joints are excised by Mr. Syme and others, which might be saved by time and perseverance.

The last point to be considered is the subsequent state of the limb. Experience has proved that true ankylosis or osseous union does not even frequently occur, indeed not without very great attention on the part of both the surgeon and patient, and particularly not without absolute rest. When no such precautions are employed, the union is by means of a tough, flexible, ligamentous-like substance, that permits the bones to be used with more or less freedom, according to the exercise which they are made to undergo, during the process of healing. The voluntary motion, at first impaired or altogether lost, gradually returns, and ultimately becomes as strong as ever. Mr. Syme winds up by asserting, that the cases to be related will prove that it is possible to save limbs by excision of diseased joints nearly, if not altogether, as useful as before they suffered from disease.

METHOD OF PERFORMING EXCISION OF THE JOINTS.

The precepts given by Mr. Syme are these:—Let the patient be placed in the position which most readily exposes the articulation, and is preserved with least difficulty. A tourniquet is seldom necessary. The most convenient scalpel is a long, narrow one, straight in the back, very slightly convex in the edge, stoutly made, having a small part of the back ground off obliquely at the point, so as to render it less apt to be broken, and to bring it to correspond with the axis of the handle. The preliminary incisions should be free; in making them, the knife should be thrust at once into the joint, and afterwards carried close down to the bones, which shortens the operation, lessens pain, and renders the line of incision more determined in its direction. The muscular and tendinous parts should be as little injured as possible, and the most effectual method of saving them is to cut them close away from their attachment. The saw may be either a simple blade, or the one in common use for amputation, which Mr. S. believes to be the most convenient. He finds the hand the most effectual guard for the defence of the soft parts; and, instead of cutting the bone completely through with the saw, it is often better to divide it only partially with that instrument, and then resort to the cutting pliers, which readily detach the fragment as soon as there is a groove formed for the reception of their blades. Unless the bone is very large and hard, the pliers are of themselves sufficient for the purpose. The flat sides of the blades should be turned towards that surface of the bone which is to remain, as it will thus be less apt to be splintered or irregular.

“When all the diseased bone has been got away, which will be learned by a careful examination of the separated fragments and the remaining surface, if there are any large masses of gelatinous substance which can be easily detached, it is as well to remove them,

since, though they would not afford any great obstacle to recovery, they might have some effect in retarding it, and also preventing the edges of the wound from coming readily together. Though the hemorrhage is generally pretty free in the first instance, it seldom persists so as to require the application of ligatures. The general oozing from the surface is usually soon checked by exposure to the air, or washing with cold water; but if, after the operation is ended, one or more arteries should continue to throw out a jet, they ought to be secured, as it is next to impossible to exert pressure with any effect, and considerable inconvenience is apt to result from the cavity becoming distended with blood. The vessels that prove obstinate are generally situated in the indurated subcutaneous cellular tissue, and require considerable care both for their discovery and ligature.

The next part of the process is to place the edges of the wound in contact, and retain them together, which is best effected by the interrupted suture, unless the integuments should be so very soft as to give way under the pressure of the threads, in which case compresses of lint must be used in their stead. It is always of most consequence to unite the edges of the transverse incision, if there is one, since, if they do not heal by the first intention, they are afterwards brought together with very great difficulty, and the broad cicatrix which results from their separation is very adverse to the mobility of the joint. Some compresses of lint ought to be applied over the flaps, and then the limb being placed in a proper position, that, namely, in which it will most frequently be required after the cure is completed, it ought to be enveloped with a long roller, which affords the requisite support much better than splints or rigid cases of tin or pasteboard.

The constitutional disturbance, for the reasons already stated, is usually very slight, and requires nothing more than some gentle purgative or slight antimonial, with spare diet and rest. The pain is usually severe for the first five or six hours, but then subsides, and seldom proves troublesome afterwards. The dressings ought to be changed ten or twelve hours after the operation, by which time the oozing of blood and serum will be at an end; and then also any inequality or gaping of the edges may be rectified by slips of sticking-plaster. Union by the first intention sometimes takes place through nearly the whole line of incision, except where old sinuses exist in its course; more frequently the adhesion is only partial, and the wound opens out more or less widely, according to the degree of local inflammation, and the distention caused by blood contained within its cavity. In the course of a few days, the discharge, which was at first copious and offensive, begins to diminish; all the clots of blood issue from the wound; the swelling subsides; and the favourable change is altogether so sudden and satisfactory, as to surprise those who are not accustomed to witness the operation.

During the cure every means is to be employed either to keep the limb perfectly quiet, to favour ankylosis, or to exercise it in the degree and extent of mobility which will be required of it. The wound is generally very nearly healed in the course of a few weeks, but one or more sinuses continue to discharge for months, or even a year or two. Small portions of bone also occasionally come away; but if the surgeon has done his duty in the first instance, he need not be under any apprehension on these accounts; and the patient will be too well pleased with being freed from the pain of his disease, and having regained the use of his limb, to feel annoyed by the trifling inconvenience which he thus experiences." 37.

EXCISION OF THE SHOULDER-JOINT.

Having noticed the preceding part of the volume, which treats of excision of joints generally, we shall endeavour to be brief with the suc-

ceeding portion, which is devoted to the consideration of the particular articulations. We are induced to do this because much has already been published on the subject, and those who wish for very particular information may readily refer to Mr. Syme's book, his former papers, or to the article on Excision of Joints in the Surgical Dictionary.

The humerus is not always affected to the same extent, but all that part above the attachments of the pectoralis major and latissimus dorsi should be taken away, and that in the first instance, to afford room for getting access to the scapular part of the disease. The acromion sometimes participates in the disease, and then requires removal. By opening the articulation at its external or lateral part, and then cutting close to the bones the axillary artery is perfectly safe. The only vessel requiring a ligature is the posterior circumflex artery.

The best way of bringing the bones completely within reach, with least injury to the soft parts, is to make a perpendicular incision from the acromion through the middle of the deltoid, nearly to its attachment, and then another shorter one upwards and backwards, from the lower extremity of the former, so as to divide the external part of the muscles. The flap being dissected off, the joint will be brought into view, and the capsular ligament, if still remaining, having been divided, the finger may be passed round the head of the bone, so as to feel the attachments of the spinati and subscapular muscles, which can then be readily divided by introducing the scalpel, first on one side and then upon the other. The elbow then being pulled across the fore-part of the chest, the head of the humerus will be protruded, and can be easily sawed off whilst grasped in the operator's left hand. The subsequent part of the operation is to be conducted on the principles already laid down. As the preservation of as much mobility as possible is desirable, motion should be restrained no further than is necessary to prevent irritation and displacement. The tendency of the pectoralis major and latissimus dorsi to draw the extremity of the bone inwards may be easily prevented by placing a cushion in the axilla. Two cases are detailed; we shall shortly notice the first.

Case. Christian Laing, æt. 38, applied to Mr. Syme in June, 1825. She complained much of pain in the left shoulder, shooting down the arm to the fingers—the articulation was nearly immoveable, and the limb entirely useless, being constantly kept in a sling. There was a small opening directly under the acromion, and another about the middle of the clavicular part of the pectoralis major, both of which allowed the probe to pass deeply in the direction of the joint. The discharge was thin and copious, the integuments natural, and there was little swelling. She was a healthy-looking woman, apparently somewhat exhausted by anxiety and suffering. The disease had commenced six years previously after a fall upon the shoulder. For five years after the injury she suffered only pain and stiffness, but then, after some rough usage, an abscess formed on the fore-part of the joint, and, still more recently another. Mr. S. merely dilated the sinuses and sent the patient into the country. In the following March she returned, much thinner and weaker than before, with another sinus just above the posterior margin of the axilla, an almost incessant gnawing pain, little appetite, and an exhausting diarrhœa. Nothing but an operation promising relief, Mr.

Syme proposed to cut down upon the joint, and excise the bone or amputate the limb according to circumstances. His mode of operation having been already described, we need not go into the details in this place. The head of the humerus being hollowed into a cavity was removed; the glenoid cavity seemed sound, though divested of its cartilage; but the extremity of the acromion was bare and rough, and was cut away with the cutting-pliers. The operation occupied ten minutes. An attack of erysipelas followed the operation, but in a few weeks the wound was healed, except at those parts which corresponded with the openings of the previous sinuses. The use of the limb returned gradually, and by degrees the sinuses dried up, though one of them continued to afford a few drops of serous exudation for two years. She is now, four years and a half after the operation, in the following state. She is stout, active, and young-looking; manages her domestic concerns as a tradesman's wife; sews, knits and washes; and can carry a full pitcher of water with her left arm. There is no discharge or uneasiness of any sort. The left arm is about an inch shorter than the right. The shoulder, when examined bare, exhibits a deep, irregular, unseemly cicatrix. The joint allows the limb to be moved in all directions to nearly the natural extent, but the voluntary command over it is much more limited. She can move it across the chest, both backwards and forwards, with considerable force and freedom, but she has very little power of abduction.

In the other case of excision of the head of the humerus, there were symptoms of affection of the lungs before the performance of the operation, and the man died of phthisis six months after it.

EXCISION OF THE ELBOW-JOINT.

This is much more difficult, from the anatomical characters of the parts, than excision of the head of the humerus. The operation may be required either for caries, or for the effects of external injury both primary and secondary. The part that usually suffers most from caries is the olecranon, which is not unfrequently hollowed into a cavity, and diseased throughout; the radius and humerus are in general affected but superficially, and the disease very seldom extends beyond the head of the former and tuberosities of the latter. It is always right to take away the whole of the sigmoid cavity of the ulna, comprehending the olecranon and coronoid processes, together with the head of the radius and extremity of the humerus, as high as its tuberosities. The removal of more would be unnecessary, of less useless.

"The easiest way of accomplishing this is to remove the olecranon in the first place; then to cut the lateral ligaments of the joint, so as to free the extremity of the humerus, and saw it off; lastly, to detach, by means of cutting-pliers, the head of the radius, and the remaining part of the sigmoid cavity. The reason for not separating at once the whole of the ulna that requires to be removed is, that, in case it is divided below the insertion of the *brachii internus*, its removal becomes extremely difficult. Having experienced this inconvenience in one of my first cases, I have since always proceeded as has just been described, and never found any difficulty in detaching the coronoid process after gaining the free space that was afforded by removing the olecranon.

A simple longitudinal incision will not give sufficient access to the joint to allow of its excision, even in a sound state of the parts, much less when they are thickened and pro-

ternaturally adherent, as in cases of caries. An additional transverse cut was therefore proposed by Mr. Park, intersecting the other at right angles; but this plan labours under the double objection of splitting the triceps, and not permitting free exposure of the humerus. A method still more objectionable, on the ground of unnecessarily injuring the muscles, is to make a longitudinal incision, and two transverse ones at its extremities, so as to form two lateral flaps. By far the best plan that has yet been contrived is that of Moreau; and though it may appear at first sight complicated and destructive to the soft parts, it is really the easiest and least injurious that can be imagined. The figure H gives a perfect idea of his incisions; and it is only necessary to state further in explanation of them, that the transverse one should be close above the olecranon. In making this cut the ulnar nerve is apt to be wounded or divided; and though the facts mentioned below make this injury appear of very little consequence, as there can be no advantage in inflicting it, the surgeon ought to use the precaution of ascertaining the situation of the nerve before introducing his knife. The thickening of the limb is sometimes not so great as to prevent the nerve from being felt, but more frequently its situation can be discovered only by recollecting its position relatively to the bones; it lies close to the inner edge of the olecranon, and will certainly be cut if the transverse incision is prolonged farther than this towards the internal tuberosity of the humerus. The surgeon, therefore, ought to feel for the olecranon, and introduce his knife close to its upper surface, with the back turned towards its inner margin, but somewhat nearer its radial side. Having thrust the knife down into the joint, he ought to cut transversely, with a sawing motion, so as to insure the division of the tough tendinous parts, until he arrives at the radial tuberosity of the humerus. He may then make the longitudinal incisions, which should extend about an inch and a half upwards and downwards, without any danger whatever, as the oblique course of the nerve recedes from the line of division. Both flaps should be dissected previously to commencing the excision of the bones, as it is thus rendered much easier than when the exposure is confined to the part that is to be first removed. The hemorrhage is generally profuse immediately on the incisions being made, but soon diminishes, and seldom persists to such extent as to require the application of a ligature; on the principle already stated, however, it is right to secure any vessel, however small, that threatens to continue to bleed. In those rare and perplexing cases, where the ulna is diseased below the coronoid process, and requires to be divided through its shaft, the interosseous artery is very apt to be divided, and must, of course, be tied. As to the humeral artery, it is always perfectly safe, being protected from injury by the whole thickness of the *brachialis internus*." 70.

There is great variety in the difficulty experienced in different cases, owing to the nature of the adhesions, &c. After the operation the edges of the wound should be stitched together, the limb should be half bent, and a long roller applied in the figure of eight to give it proper support. The best position for the patient in cutting out the elbow, is lying with his face downwards on a sofa or table covered with a mattress.

Thirteen cases of excision of the elbow-joint are detailed. As many, if not most of them, have been formerly published in other journals, and some have been noticed on different occasions in this, we shall waive their consideration in the present place. We pass to—

EXCISION OF THE WRIST-JOINT.

The construction of this joint, with its many bones and the numerous vessels and tendons in its vicinity, would seem to forbid, or, at all events,

furnish strong arguments against excision. Mr. Syme has never performed the operation, but if circumstances should render it advisable, he should proceed in the following manner. Two longitudinal incisions, about an inch and a half in length, should be made from the extremities of the radius and ulna upwards along the lateral aspects of these bones. Then two shorter cuts are to be carried inwards on the posterior surface of the wrist, from the lower ends of the former ones. The extensors of the thumb will be divided, and the radial artery must be carefully avoided. The bones being exposed as well as possible, should be divided with the pliers as high as necessary, when their removal will be easily accomplished, after which the carpal part of the articulation may be readily cut away with the pliers and gouge. It is said that Moreau, jun. and Roux have performed this operation with success.

In caries of the carpal bones, it is hardly prudent to attempt excision, unless the disease is stationary, of limited extent, and without thickening in the neighbourhood. In operating, the surgeon should give himself plenty of room by a free crucial incision, and having exposed the bone by raising the flaps he may remove with the gouge and pliers, the carious portion, which he recognizes by its softness. When the first joint of the fingers or thumb is affected, amputation is preferable to excision, as the shrunk and powerless digit is only an annoyance to the patient.

EXCISION OF THE HIP-JOINT.

Reasoning would lead to the supposition that excision is not so applicable to the articulations of the lower extremities as to those of the upper. But we yet want sufficient facts to set the question entirely at rest. Excision of the hip-joint, for disease, has been proposed. Mr. Syme thinks that the almost invariable implication of the acetabulum in the ulcerative process is a sufficient bar to such an operation. Sometimes obstinate sinuses about the hip are owing to exfoliation of the bones of the pelvis, and the removal of the diseased portion is followed by a cure. Where the head of the thigh-bone has been shattered by a musket-bullet, without extensive injury of the soft parts, extraction of the fragments would be preferable to amputation. In trials on the dead subject, a single perpendicular incision, five or six inches long, commencing a little above the trochanter major, has been found to afford sufficient room for cutting out the head of the bone, where the parts are sound and free from morbid adhesion.

EXCISION OF THE KNEE-JOINT.

"The objections to excision of the knee-joint seem at first very great, and indeed insurmountable. It may be sufficient to mention the severity and danger of the operation, the tediousness of the cure, and the little difference as to utility between the stiff limb that is preserved and an artificial one. Upon closer examination, these objections, though they do not altogether vanish, certainly appear of less force. Thus the operation requires comparatively small superficial incisions, and can be accomplished much more quickly and easily than excision of the elbow-joint. It certainly must be regarded as much more dangerous than amputation when the patient is very weak or exhausted by previous disease; but if he

possesses moderate strength, I think it cannot be maintained, either on the general principles already stated, or from the result of experience, that the risk attending it is more than what proceeds from removing the limb. The recovery was certainly very tedious in Mr. Park's case, but there were particular circumstances which in some measure account for this; and the few patients who have since then undergone the operation recovered in a shorter time. It ought here to be recollected, too, that though recovery from amputation of the thigh is usually completed in three or four weeks, it is generally *at least as many months* before the patient can rest the weight of his body on the face of the stump, so as to use it in standing or walking. As to the utility of the limb, we find that it can be employed freely in progressive motion, and all the patients have declared that they consider themselves extremely fortunate in having preserved their legs such as they were. The advantages of the operation which may be contended for, are, that it preserves the natural support of the body afforded by the bones and joints of the *tarsus, metatarsus*, and toes, which, by diffusing the effects of force applied at the extremity of the limb, protects both it and the other parts of the body from concussion; and that it obviates the necessity of resting the whole of the patient's weight on the *face* of a stump, which must be done when amputation is performed above the knee. On the whole, I am not inclined to condemn the excision of the knee-joint altogether; and at the same time cannot venture to recommend it, without more facts to ascertain the correctness of our hypothetical opinions on the subject." 132.

Mr. Syme's plan of operating is to make two semilunar incisions across the fore-part of the joint, extending from one lateral ligament to the other, meeting at their extremities, and including the patella between them. If more room is required it may be obtained by cutting longitudinally at the point of union of the transverse incisions. The patient being laid on his back, the cavity of the joint should be rapidly opened and the patella removed. The lateral ligaments being next cut, the extremity of the femur may readily be protruded, and as much as seems necessary sawed off. The diseased part of the tibia can easily be taken away by passing the knife round the head of the bone, so as to detach its connexions, and then sawing off a slice of the requisite thickness. The popliteal vessels are little endangered; one or two of the articular branches may require to be tied. Great difficulty has been experienced in bringing the limb into a straight position after the operation, owing to the contracted state of the flexor muscles. The surgeon must be satisfied with placing the limb on a doubled-inclined plane, in as good a position as can be obtained by moderate force, exerted by paste-board splints. In a few days the tension gradually diminishes, and before long the leg can be completely straightened. During the cure a slight degree of motion ought to be allowed, in order to prevent perfect osseous union. The chief difficulty consists in preventing the tendency to bend outwards, the best mode of opposing which consists in the careful application of splints. Two cases of excision of the knee-joint are detailed. We shall notice them succinctly.

In the first case, that of a boy aged 8, the disease had existed three years, there were sinuses, the joint was much enlarged, and bent at an acute angle. The health was broken. The operation was performed on the 7th December. There was much difficulty encountered in consequence of the contraction of the ham-string tendons, and after the operation there was a great tendency to the tibia being drawn up behind the femur. At the end of some days this was counteracted, the limb became quite straight, and all did well. In four weeks after the operation, the wound was nearly healed, in three

months it had regained so much strength that the patient could make some use of it in walking. At present he can walk and run, though with a halt, and merely requires the *heel* of the shoe to be two inches higher than the other. The limb is stout, slightly bowed outwards, and allows a slight degree of flexion and extension.

In the second case the operation was performed on the 14th December, and the boy died on the 8th of January.

EXCISION OF THE ANKLE-JOINT.

The following observations on this operation are characterized by fairness and judgment.

"Next to the knee-joint the ankle is the most common seat of white-swelling, and the practicability of its excision is therefore an important subject of inquiry. It might be thought that the same objections would apply here as to the wrist-joint, but they hardly do so, at least to an equal extent. Instead of the three carpal bones which are connected with the radius and ulna, there is only one of the tarsus united with the tibia and fibula, viz. the astragalus, and it is of so large a size that the articular surface may be removed without encroaching on its connexions with the other tarsal bones; while in the wrist it is impossible to take away any portion of the carpal part of the articulation without opening other joints, and thus laying the foundation of future disease by exciting inflammation in a structure predisposed to unhealthy action. In the ankle, too, the tendons are less numerous, and the bones are of a larger size, so that more room can be obtained for their removal. But though excision of the ankle may thus be not so objectionable as that of the wrist, it cannot boast of much advantage. The object to be gained being merely a support for the body, it may be questioned how far the foot that remains after the ankle-joint has been cut out is superior for this purpose to an artificial one. It appears from the experience of Moreau, that ankylosis is very apt to ensue after the operation; and though, as he observes, the other joints acquire an unusual degree of mobility, so as to compensate in some measure for the rigidity which is thus caused, there can be no doubt that the elasticity of the foot will be greatly impaired. The limb, too, must be considerably shortened, and the ankle little calculated for bearing the severe strains to which it is exposed. It may be proper to notice also, that a very large proportion of the diseases usually referred to the ankle-joint are seated in the articulation between the astragalus and *os calcis*." 141.

Moreau's mode of operating appears to Mr. Syme to be the best. Two incisions, three inches in length, or more, are to be made along the posterior edges of the tibia and fibula, from their inferior extremities upwards; then from the lower ends of these two transverse cuts, in a direction forwards, as far as the tendon of the tibialis anticus on the tibial side, and to that of the peronæus tertius on the fibular side. The flaps being raised, the bones of the leg are exposed, and may be divided by the saw or pliers as high as necessary, after which the separation of their ligamentous connexions is easily effected. The articular surface of the astragalus may lastly be readily removed by the gouge or cutting pliers. The limb should be gently moved during the cure, to effect a firm fibrous union rather than an osseous one.

CARIES OF THE TARSUS AND METATARSUS.

Attempts have been made to cut out the tarsal and heads of meta-tarsal bones when carious. Unless the disease is confined to the *os calcis*, and

removable without opening into the tarsal articulations, Mr. S. believes that the practice will be unsatisfactory. When the *os calcis* alone is affected the disease may be extirpated by making a crucial incision on the fibular side, and then digging out the carious part with a gouge.

"If the disease extends to any of the other tarsal or metatarsal bones, there is hardly any remedy but amputation; and if either the *astragalus* or *os calcis* be affected, of course the whole foot must be removed. It will be well, however, to recollect in such cases, that it is neither necessary nor useful to take away so much of the leg as is usually done. If the amputation is performed in a proper manner at or below the middle, so that a good cushion of muscle and integument is left to protect the extremities of the bones, the patient will retain the use of his knee-joint, and be able to stand or walk with an artificial foot, or short wooden pin, much more conveniently than he could do if obliged to support himself by resting on the knee. As the half of the leg is sufficient for this purpose, the surgeon should not amputate lower than this, since, though it may sometimes be possible to obtain a good stump by doing so, it much more frequently happens that, from the soft parts being too scanty in proportion to the size of the bones, these are badly covered."

When both the *os calcis* and *astragalus* are sound, it is practicable to save an useful part of the foot by partial amputation.

PARTIAL AMPUTATION OF THE FOOT.

According to Mr. Syme's observations, the principal parts of the foot liable to be affected by caries are three;—the articulation between the bones of the leg and the *astragalus*—the articulation between the *astragalus* and *os calcis*—the further range of tarsal bones and neighbouring heads of the metatarsal. Here the disease is completely within reach of an amputation, such as Chopart's, which leaves only the *os calcis* and *astragalus*. Mr. Syme considers and meets the objections which have been urged against the operation, but we may omit his arguments, and content ourselves with shewing his method of operating.

"When the operation is to be performed, a tourniquet ought to be applied; and as it is always proper to compress vessels as near as possible to the part where they are to be divided, the pad should be placed over the posterior tibial artery, just above the ankle. Various minute directions have been given for determining the position of the joints. But the following very simple observation will, I am sure, be always found quite sufficient for the purpose. If the surgeon casts his eyes upon the space between the outer ankle and head of the metatarsal bone of the little toe, he may easily ascertain the middle distance of these points; and this is the situation of the joint between the *os calcis* and cuboid bone. The other articulation, viz. that of the *astragalus* with the navicular, lies very nearly in the same transverse line; and the projection of the latter bone renders its discovery still more ready and certain. The flaps may be formed either entirely from the sole of the foot, or partly from it, and partly from the integuments of the instep; but the former plan is preferable, as affording a better covering for the bones. In this case it is necessary to make the flap extend fully to the balls of the toes, or farther extremities of the metatarsal bones; and it is here that one is most apt to be wrong, by cutting the parts too short for forming a good stump. In making the incision, it is recommended to effect the disarticulation before making the flap from below; but I have uniformly found in operating on the dead subject, that it was extremely difficult in this way to cut it smoothly, owing to the relaxation of the

parts in the sole of the foot, which ensues upon the separation of the bones. It is much better, therefore, to transfix the foot from side to side, and complete the section of the flap before opening the joints, while the parts are held steady under the knife. After this analysis of the operation, it may be well to give a connected account of the mode of performing it.

The surgeon, having recognized the position of the joints, should place the points of his thumb and fore-finger upon them, embracing the foot in his hand; then, with a small sharp-pointed amputating knife, blunt on the back, make an incision from the one to the other, slightly curved towards the toes, in order that it may correspond to the flap below; and next, instead of opening the joints, run his knife through from side to side, between the bones and flesh of the sole, and cut forwards close to the bones, until he arrives at the balls of the toes, when he terminates the incision, not abruptly, but gradually, so as to have a smooth edge and surface. Nothing now remains but the disarticulation, which may be effected with extreme facility, as the surfaces of the joints are nearly straight, and in the same line.

The anterior tibial and external plantar arteries require to be tied; after which the flap being stitched into its place, compresses and a bandage ought to be applied. The limb during the cure ought to be kept bent to relax the gastrocnemius." 153.

Two cases are given in illustration, but these need not be noticed. We have now done with the present work, and a few words on parting are all that remain. We think that the facts which are detailed by Mr. Syme are sufficient to prove that excision of joints is much more generally useful and advisable than was imagined. We cannot say, but we think that Mr. S. is inclined to go a little too far, but this is a matter of opinion, and we may be wrong. We believe that the operation will come into more or less general use, and then the profession will have the best, indeed the only satisfactory evidence of its merits or defects. It appears to be more applicable to the upper extremity than to the lower, and of all the articulations it seems most adapted to that of the shoulder. Within these few weeks the head of the humerus has been twice excised at St. George's Hospital for caries and disease of the shoulder-joint. Both the patients are doing well.

A word or two on the author, and on the execution of his book. Mr. Syme seems generally actuated by a spirit of candour and fairness in his observations, and he evinces very little prejudice or bias in favour of the views which he more immediately supports. The work is not a model of composition, but that is not to be expected. It is likely to prove useful in the hands of those who may be destined to perform operations, and we suppose that utility is Mr. Syme's chief aim.

XIII.

MEDICAL ZOOLOGY AND MINERALOGY; OR, ILLUSTRATIONS AND DESCRIPTIONS OF THE ANIMALS AND MINERALS EMPLOYED IN MEDICINE, AND OF THE PREPARATIONS DERIVED FROM THEM, &c. &c. &c.
By *John Stephenson, M.D. F.L.S.*

THE favourable reception which the work on Medical Botany, lately completed, has experienced, would appear to have given rise to the present undertaking. There can be no question that an acquaintance with Medical Zoology would be highly useful, though not absolutely indispensable, to the medical practitioner, and in the present day of intellectual emulation, we doubt not that opportunities for its acquirement would be eagerly embraced by many individuals. The work whose title is given above appears well calculated to fulfil the indications, and will prove an acquisition to the medical public. Its form, size, and price, are precisely those of the "Medical Botany" to which we have already alluded, and we venture to say that the purchasers of one will be the purchasers of both. It is published in monthly numbers, at a moderate expense, and contains a very large amount of useful knowledge, as well as entertaining information. It cannot be supposed that a formal review of a work of this description is admissible, but we may give one or two extracts in order to shew the style and handling of the matter. Of the five numbers which have now (we are writing in May) seen the light, the last is the best. It contains a description of several varieties of snake and serpent. Take the following description of the Egyptian Asp as a specimen.

"NAJA HAJE.—*The Hajè, Asp, or Aspic.*

SPEC. CHAR. *Body olive-brown, variegated with white; abdomen whitish, with blackish spots; neck capable of inflation; length five to six feet.*

Le vipere Haje; Daudin, Rep. vi. p. 41. L'Aspic; Geoffroy, Rept. Egypt. suppl. t. 3.

THIS species, which has attained more than ordinary celebrity from being supposed to be the animal whose poison the famous Cleopatra selected to terminate her existence, is found abundantly in Lower Egypt, sometimes in hedges, and sometimes in the fields. 'It is universally known,' says Mr. Griffith, 'that this illustrious princess, abandoned by fortune, who had so long smiled upon her, commanded that a reptile of this species should be brought to her, concealed in fruit and flowers, and caused it to bite her, to put a period to her misfortunes. But after the fall of the Roman empire, though Egypt still preserved some traces of the high renown of Cleopatra, and though the name of the Aspic was not pronounced without some degree of horror by all the people of Europe, still for a long series of ages the true species of the serpent was unknown, and the Cerastes, the Egyptian Viper, the Ammodytes,* and the Lebetina, were taken for it. Bruce declared for the first of these opinions, Forskal for the last, and Laurenti, Hasselquist, Daudin and Count

* "The Coluber Ammodytes, *Jacq. Coll. iv. t. 24, 25*, a species greatly allied to the Viper, from which it is distinguished by an erect process or wart at the tip of the muzzle. It is an extremely poisonous reptile, and inhabits the mountainous parts of Illyria."

La Cépède, for the second, which undoubtedly has some plausibility, for it is well proved that under the name of *aspis*, the ancients were acquainted with many venomous serpents aboriginal of Egypt.

‘It has been only since the expedition of the French to Egypt that the true species of the Aspic has been ascertained. During the period of that expedition, the French philosophers attached to the army observed a species of ophidian, regarded as harmless by Linneus and most herpetologists, but considered extremely venomous by the traveller Forskal. This ophidian is called *hajé* by the inhabitants, and recent travellers have incontestibly proved that it is the true aspic of the ancients, which never inhabited Europe; for the reptile which some years infested the forest of Fontainebleau, and was called by this name, was nothing but a variety of the common viper; and the *Æsping* of the Swedes, is quite another species from the one in question.’*

The ancients entertained a notion that the poison of this serpent is more deadly than that of any other venomous creature inhabiting the East; that its bite, though inevitably mortal, produced no pain or violent symptoms, and merely occasioned the gradual diminution of pulsation, which was followed within twenty-four hours by a profound sleep terminating in death. Galen assures us, that in Alexandria, to shorten the punishment of criminals condemned to death, they were bitten in the breast by an Asp; and Dioscorides asserts that the wounds occasioned by the bite of this reptile are unaccompanied by any local tumefaction, and that they are so small that they appear to have been made with a very fine needle.” 89.

Let us turn from the asp, borne amidst roses to the breast of the Egyptian queen, and contemplate one of those frightful and horrid reptiles, which would seem to be inflicted by God upon the earth, as a scourge on the rest of his creation. The most powerful pens have been employed in the endeavour to depict the terror which these creatures inspire in the islands of the West. The *cophias lanceolatus*, or yellow viper, which infests Martinique, St. Lucia, and Beconia, is of this appalling character. By a chance or design equally fortunate and inexplicable, these islands alone can lay claim to the unenviable distinction of possessing the viper in question. In St. Lucia and Martinique, the marshes, the tilled grounds, the forests, the borders of rivers, and the mountains, from the level of the sea to the region of the clouds is peopled by the *cophias lanceolatus*. They are seen every where, their asylum is the sugar-cane plantation, they lie in ambuscade in bush and brake, and they find their way into the cottage, especially into that of the unhappy negro. Our readers will excuse our making another extract.

“These reptiles possess an activity and vivacity of motion truly alarming. A ferocious instinct induces them to dart impetuously upon passengers, either by suddenly letting go the sort of spring which their body forms rolled in concentric and superpoised circles, and thus shooting like an arrow from the bow of a vigorous archer, or pursuing them by a series of rapid and multiplied leaps, or climbing up trees after them, or even threatening them in a vertical position.

The effects of the bite of these serpents are in general very terrible, but vary considerably, according to a multitude of circumstances. The tumefaction of the part, which soon becomes livid and gangrenous, nausea, convulsions, cardialgia, and an invincible somno-

* *The Animal Kingdom, described and arranged in conformity with its organization by Baron Cuvier, with additional descriptions by Edward Griffith, F. L. S. vol. ix. p. 352.*

lency, are the ordinary symptoms of the action of their poison, which either produce death in the course of some hours, or at most some days, or causes for several years vertigos, paralysis, more or less extensive, phagedenic ulcers of a malignant character, and a variety of other distressing infirmities. It is therefore nowise astonishing that the *Trigonocephalus* is an object of horror, not only to man but also to animals. The horse trembles and prances violently in its presence; rats scud away at its approach, sending forth cries of terror; birds especially, against which it wages inveterate war, manifest their aversion to it by repeated clamours; and the *Loxia indicator*, by pursuing with its cries, often indicates to man the place of its retreat.

The african races, which form a great portion of the population of Martinique, constantly preserve certain organs of this reptile for talismans, either preservative or hurtful. These are called in the Carib language, *piailles*, and they are always found among the materials of those magical conjurations undertaken by the negroes who are addicted to sortilege.

The severity of the accident produced by the bite of the *Trigonocephalus* varies, as in the case of other venomous serpents, according to the state of health of the bitten subject, the depth and number of the wounds, the time which has elapsed since the animal made use of its fangs, and, consequently, the quantity of poison which had penetrated into the system. But in all possible cases the help of art is indispensable." 95.

A variety of remedies have been tried and vaunted, which proves that none have any decided or specific power.

"In the *post-mortem* examination of such persons as have died some time after the accident, Dr. Renzger, a German physician, whose experience on these subjects has been considerable, always found the brain and spinal cord partially softened, and a considerable effusion of bloody serum in the cavities of the skull, thorax, and abdomen; the lungs and liver were gorged with blood, and as well as the intestinal canal, exhibited gangrenous spots; the cellular tissue round the wound was sloughy, and, on incision, a great quantity of decomposed blood and sanies escaped from it.

In those cases which do not end fatally, the wound becomes inflamed and erysipelatous, the general symptoms gradually disappear, and the disease altogether ceases within from three to eight weeks, under general perspiration and bilious diarrhœa. Sometimes, however, great debility and cachectic appearances remain, and death ensues, after two or three years, under paralysis, mental derangement, or dropsical symptoms. In case of ultimate recovery, the healing of the wound always takes place very slowly; the skin and neighbouring cellular tissue slough, and discharge a great quantity of blood; the margins of the wounds are of a livid colour, and bleed on the least touch; after some time, the sloughs having come away, suppuration begins to take place, but is always of an unhealthy kind; cicatrization hardly ever takes place before some months, or even years; the cicatrix is thin, of a livid colour, and liable to be inflamed or absorbed.

The best method of treatment consists in the excision of the wounded part, and its subsequent scarification and cauterization. If the necessary instruments are not at hand, the wound must be sucked and repeatedly washed with water, lemon-juice, or brandy, as in other cases of poisonous wounds; at the same time it is advisable to put a tight bandage round the limb. Stimulants must be given internally, and the wound is continually, even after the remission of the general symptoms, to be treated with stimulants and antiseptics, otherwise it will become gangrenous. In India, it appears the Tanjore pill, of which arsenic is the chief ingredient, has been exhibited with considerable success against the bites of venomous serpents. In the second volume of the *Medico-Chirurgical Transactions*, there is a series of cases related by Mr. Ireland, surgeon of the 60th regiment, where arsenic was administered in very large doses with good effects. Mr. Ireland, on his arrival in the

islands of St. Lucia, was informed that an officer and several men belonging to the 63th regiment, had died from the bites of the Fer-de-lance, and that every thing had been tried by the medical men, to no purpose, he was determined to give arsenic a full trial. In these cases he exhibited two drachms of Fowler's solution with ten drops of laudanum, in the effervescing draught, and repeated it every three or four hours. Externally, the parts were frequently fomented with warm water, and rubbed with a liniment composed of oil of turpentine, liquid ammonia, and olive oil." 100.

From the foregoing specimens the professional public may form some opinion on the nature and probable value of the "Medical Zoology." The author, we imagine, makes no pretence to its being much more than a compendium, and this is all that is required. We shall watch the progress of the work, and report upon it from time to time. We hope that Dr. Stephenson will not relax in his endeavours to render it as complete and as accurate as possible. There are many errors of the press in the present numbers, and we would recommend the industrious author not to slumber on his post, but to strain every nerve in the progress of his undertaking. We recommend our readers to procure and patronize the "Medical Zoology."

XIV.

OBSERVATIONS ON CALCULOUS DISORDERS. By *B. C. Brodie, Esq.* F.R.S., as delivered by him in his Surgical Lectures. Medical Gazette, Nos. 174, et sequent.

OF the importance of an accurate knowledge of the diseases of the urinary organs no practical surgeon nor physician can entertain a doubt. It is true that many difficulties stand in the way of arriving at that knowledge, but the majority are not insuperable, and consequently become a stimulus rather than an obstacle to the success of ingenious and enterprising men. In most diseases, at all events of those organs or tissues which are veiled from sight, we deduce the probable alterations in their structure by more cognizable alterations of their functions. By observing the latter at the bed-side of the sick, and noting the morbid changes of structure presented to our view after death, we couple and connect the one with the other, we mark, compare, and reason, we bring into play the inductive method of philosophizing, and rescue the practice of medicine from much of the obscurity thrown around it, by the empiricism or dogmatism of former ages. It is in this manner, and in this alone, that we can attain to any certain and positive information in medical science. It is by linking symptoms with organic alterations that we ascertain the nature of disease. This is not the whole, to be sure, but it is the foundation on which all that is solid is to be reared, and without it all systems and theories were built but to decay.

In studying the disease of the urinary organs it is necessary to proceed on precisely the same plan as in the investigation of other organic maladies. We must explore the functions of the parts, both natural and deranged, and mark the corresponding structural alterations; on this is to be erected the

only scientific system of diagnosis and cure. Accordingly we find that the ablest and most philosophical inquirers of modern times have proceeded in this manner. Wollaston, Brande, Marcet, Prout, Bazelius, and many others, have devoted their attention to the healthy and unhealthy conditions of the urine. With the exception of Dr. Prout, few have attempted in a philosophical manner to connect those conditions of the urinary secretion with particular states of the system in general or of the secreting organs in particular. On Dr. Prout's investigations we can hardly pass too high an encomium; they evince a degree of patient enquiry, and of sound induction, which place him high amongst the scientific men of the day. We shall presently see that Mr. Brodie will bear comparison with any, even the best of those whose names we have recorded.

The chemical examination of the urinary secretion presents peculiar difficulties to the analyst. If the other fluids of the body exhibit variations they are rather of degree than of kind, rather consisting in alterations of the relative quantities of ingredients, than of the composition of those ingredients themselves. With the urine it is otherwise. It varies in its characters in health, it varies ten times more in disease. To catch and fix each fleeting feature, would be as vain and as unprofitable a task as to hunt the flying shadows of an April day. In truth, it is hard to say what are the precise components of healthy urine. One chemist tells you one thing, another maintains the contrary, and who is to decide when none agree. A late writer on chemistry makes a few remarks upon this subject which are not undeserving of attention.

"It is difficult when so many substances exist together in a fluid to find out their state of combination; accordingly, very different accounts have been given of the saline ingredients of urine. During the evaporation of a fluid containing salts new affinities are brought into play, and compounds altogether different from those existing in it are produced. But another difficulty presents itself with regard to urine. The *urée*, during the evaporation, generates ammonia, and thus causes the decomposition of some of the compounds and the formation of others. Hence, instead of free uric and benzoic acids, urate and benzoate of ammonia are obtained; and in place of the super-phosphates, neutral-phosphates and ammoniac-phosphates are deposited. It is evident from this, that the substances procured must vary materially, according to the mode of analysis."

Fortunately disagreements in minor points of chemical researches exert no prejudicial influence on practice, and, so far as we know, it matters little to surgeons whether the pyro-uric acid be or be not the succinic. The more prominent, more obvious, and therefore, in a practical view, the more important features are recognized and acknowledged on all quarters. We have said that the knowledge of the diseases of the urinary organs has latterly made perceptible progress in this country. Yet that advance has been rather by the few than by the many, by individuals of talent and acquirements, not by the general mass of the profession. Knowledge to be widely useful must be widely diffused, and in our profession it is of comparatively little benefit to mankind, if the chosen few are its sole possessors. Your rare gems in the cabinets of *virtuosi* are pretty to look at and nothing more. We hail then the publication of Mr. Brodie's experience on calculous diseases, with a high and unfeigned degree of pleasure. There are few men of such sterling practical attainments, very few indeed on whose opinions his professional brethren are inclined to place such complete reliance. He

has reached the summit of his profession by no royal road, by diligent observation of the phenomena of disease, and unwearied cultivation of morbid anatomy, in youth, in manhood, and we trust in age. Those who know him best, and especially those practitioners whose opportunities of testing the value of his professional opinions have been most ample, will acknowledge the justice of the tribute we pay to him. We are no sycophants; we do not "flatter to betray," but we had rather run the risk of being accused of flattery, than withhold a public expression of approbation, where approbation is deserved. We could not say less, and we will not say more. We proceed to the analysis, for an analysis it will be, of the lectures in question.

The urine in its natural state is composed of many ingredients, maintained in solution at the temperature of the body. Sometimes, although this temperature is unaltered, and the urine continues in the bladder or urinary passages, one or more of these ingredients is deposited in a solid form. The deposit may be in the form of small particles or sand, or of larger masses termed calculi; but whichever it be, the nature of the disease is essentially the same.

I. SAND IN THE URINE.

The urine contains, as is well known, a large quantity of uric or lithic acid, not in a free state, for it is very insoluble, but usually in the form of lithate of ammonia, a very soluble salt, which causes the reddening of litmus paper by healthy urine. In very cold weather, the urine, as it cools, deposits the lithate of ammonia, blended with some animal matter. The lithate of ammonia also forms the principal part of the soft or uncrystallized sediment deposited in the vessel by the urine of persons who labour under dyspepsia, and some other diseases. If to healthy urine is added an acid which has a stronger affinity for ammonia than the lithic, such as lemon-juice, the lithate of ammonia is no longer precipitated, but, instead of it, pure lithic acid in the form of numerous small red crystals, resembling particles of cayenne pepper. This change may happen in the body also, from another acid in the urine, causing the precipitation of lithic acid sand even in the bladder. Dr. Prout says that this acid is the muriatic. Those who, from weak digestion, are liable to the formation of acid in the stomach, are also liable to the red sand. If the food be indigestible, or if taken in too large quantity, the same thing may happen in the most healthy person. The free use of fermented liquors, especially such as contain acid, or sugar which may become acid in the stomach, leads to the same result. Persons leading a sedentary life, who perspire little, are especially subject to the red sand. The perspiration, it is well known, is very acid, and it seems as if something was carried off by the skin in perspiration, which would otherwise cause the urine to be loaded with acid. Thus Sir Gilbert Blane long ago remarked that a disposition to calculous disorders is frequently combined with eruptions on the skin.

Urine containing a super-abundant acid, precipitating the red sand, is bright and transparent, and of a copper colour, like that of Maderia wine. The patient has generally dyspeptic symptoms, and frequently is liable to gout, between which and the formation of the red sand there is a close connexion. The same peculiar constitution, the same luxurious diet and in-

active life dispose to both. The chalk-stones formed in the bursæ and cellular membrane of gouty persons are composed of lithate of soda. In the higher classes of society the deposition of red sand exists chiefly in adults, in the lower, among children. Adults in affluent circumstances lead a more luxurious and inactive life than their children; whilst, among the lower orders, the diet of children is frequently unwholesome, and the consequent disorders of their digestive organs neglected.

In many instances the red sand is voided without any particular symptoms, the patient accidentally perceiving it in the urine. In other cases, there are uneasy sensations in the loins, pain in the groins and in the course of the urethra, and sometimes discharge of a small quantity of blood from the urethra. When the latter is irritable and liable to spasmodic affections, the contact of the red sand induces spasm in it, a diminution of the stream, and even difficulty in voiding the urine. In such cases bougies will not cure the stricture, unless combined with the remedies which tend to prevent the formation of the red sand.

It is of great importance to put a stop to the formation of red sand, for, in itself an evil, it may lead to the formation of a larger concretion in the bladder. It may almost invariably be prevented by the exhibition of alkaline medicines—potass, soda, lime-water, magnesia, ammonia. One or other may be preferable, according to circumstances, or it may be advisable to give them in combination. If the lithic acid is deposited in small quantity, and the bowels too much relaxed, (which is rare,) lime-water may be useful. In weak persons we may give ammonia. Dr. Prout recommends the carbonate of potass in reference to that of soda, because under certain circumstances soda will combine with lithic acid, and form an insoluble salt as bad as itself, whilst the lithate of potass is perfectly soluble, and will pass off in the urine. On the whole magnesia is preferable to all, for, being in itself insoluble, it cannot enter the circulation, unless it has first become combined with acid in the stomach or intestine, and thence cannot pass out of the system so soon. The dose of the alkalies must vary, but from ten grains to two scruples of magnesia may be given daily; and the others in proportion. Whilst the carbonates agree better with the stomach than the pure alkalies, the carbonic acid does not interfere with their effects. Salts containing a mineral acid, as the sulphates, muriates, nitrates, are of no avail, but the tartrates and citrates produce the same results as the pure alkalies or their carbonates. Thus Sir G. Blane has recommended a very efficient way of exhibiting the carbonate of potass, namely, in a saline draught with excess of alkali.

A good deal of care is necessary in apportioning the dose in such individual case. If too little alkali is given, lithic acid is still deposited, though in smaller quantity; if too much, the urine is rendered alkaline, and the ammonio-magnesian phosphate thrown down. If magnesia is taken in too large quantity, the patient is liable to the formation of magnesian calculi in the intestines, composed of the magnesia mechanically blended with the fæces and intestinal mucus. They are not uncommon now when magnesia is carelessly taken and given. Mr. Wilson found many pounds of magnesia collected in the colon of a patient, above a contracted part of the rectum. In exhibiting alkalies each case should be made the subject of a distinct experiment, and the patient should co-operate with the surgeon. As healthy urine turns blue litmus paper a little red, alkalies should not be

given so as to destroy this property altogether, still less to render the urine alkaline. If blue litmus paper reddened by immersion in a weak acid, or in healthy urine, is turned blue by that under examination, the patient is in danger of suffering from a deposition of the phosphates, and the alkalies must be given in smaller quantities. The time when the urine is most acid and alkalies principally required is after dinner; they should be given in three or four hours afterwards, for if sooner they interfere with digestion. Sometimes it is better for the patient to take his medicine when he wakes accidentally in the middle of the night. In many cases only a single dose of magnesia at bed-time is required; in others it should be taken in the middle of the day also.

But it has been truly observed that the exhibition of alkalies is not striking at the root of the disease. When there is costiveness purgatives should be given, and they are useful when the bowels are not particularly torpid. Mercurial purgatives are on the whole to be preferred. A blue pill may be given every night, with a senna-draught every fourth morning; or a calomel pill once or twice a week at bed-time, and the draught on the following morning. When the disease is connected with gout, the patient may take twenty drops of the *vin. colchici*, twice or three times daily at first, afterwards a senna-draught with forty or fifty drops of the *vin. colchici* occasionally in the morning. But most, after all, is to be effected by diet. If the patient is a great eater he must moderate and simplify his food, and incline to a vegetable diet, avoiding however, undressed, and especially acid or acescent vegetables. If he commits excesses in drinking, let him give up fermented liquors, or use them very sparingly; the French wines are injurious, especially champagne, but our own punch is worse than any.

If the patient has been in the habit of dining late in the evening, and going to bed soon after a hearty meal, he should alter his habits in this respect. If he has led a sedentary life, he should walk or ride daily, so as to induce perspiration. Those who take much exercise, may commit imprudences in diet, which they could not otherwise do with impunity. Copious perspiration may be produced most effectually by the use of the sulphur, fumigating, or hot-air bath. The latter is of great advantage to those who lead an inactive life and are subject to gout, as well as to those who have too large a proportion of lithic acid in the urine. The perspiration produced is highly acid, reddening the litmus paper even more readily than the urine does.

The red is not the only sand deposited by the urine. Sometimes it deposits distinct white particles, minute crystals of the triple phosphate. Here it is alkaline, turning reddened litmus paper blue, or, if very alkaline, yellow turmeric paper brown. According to Dr. Prout, the formation of this white sand takes place in the following manner. The urine ordinarily contains the phosphate of magnesia, a soluble salt, and held in solution. In certain states of disease the urea becomes decomposed in the kidneys, and ammonia is evolved, which combines with the phosphate of magnesia to form the triple salt; this being insoluble, is precipitated in the form of a white sand. Dr. P. also says that the same state of system which leads to the decomposition of the urea and evolution of ammonia, leads also to a more abundant formation of the phosphate of magnesia, whence arises the immense deposition of white sand.

The state of the system which leads to the establishment of alkaline urine and of white sand is very different from that which is attended with too acid urine, and with red sand. The latter occurs in those who are overfed and over-stimulated—the former is the result of debility, the symptom of an asthenic state of system, observed in those who are exhausted by too severe mental or bodily exertions, or who have long been worn down by mental anxiety. In many instances a course of mercury renders the urine alkaline, in some persons a single dose of calomel will do so, apparently from the debilitating effect of this mineral. In a weak person the exhaustion produced by an active purgative will do the same. As might be anticipated, the too abundant exhibition of alkaline remedies will lead to the same result. Injuries of the spine were first observed by Mr. Brodie to produce alkaline urine in the year 1807, and since that time the observation has been confirmed by general experience. This is equally the case whatever part of the spine is injured, whether the bladder be or be not paralytic. It continues even after the patient has recovered from all his other urgent symptoms. The same thing occurs when there is disease of the spine independent of mechanical injury. In case of *ramollissement* of the lower half of the medulla, a true case of *tubes dorsalis*, produced by excessive venery, one symptom was a half-paralytic state of the muscles of the lower limbs, another was the highly alkaline condition of the urine. At the commencement of the paraplegia the urine was excessively acid, and it became alkaline as the paraplegiac symptoms advanced. This confirms a remark of Dr. Prout's, that alkaline urine is often preceded by a too abundant formation of lithic acid. In females labouring under aggravated hysterical affections the urine is frequently alkaline, and deposits the triple phosphate in abundance. The same persons are also liable to have red or lithic sand in the urine, and not unfrequently the two kinds alternate with each other. It is astonishing what a quantity, sometimes of one, sometimes of the other, occasionally passes off in these cases.

Those persons who habitually secrete alkaline urine are generally pale and sallow; incapable of much bodily and mental exertion; complaining of lassitude and weariness. When this state of things has existed for some time their bowels become irregular, and they exhibit other marks of debility. These are the symptoms generally present, but in some few cases it is otherwise. Mr. Brodie has a gentleman at present under his care voiding alkaline urine although his health is good, and he suffers only from a costive state of bowels.

Besides the triple phosphate, another salt, the phosphate of lime, is frequently to be detected in the urine. A small quantity seems to be occasionally generated by a diseased kidney; but the greater proportion is derived from another source.

Dr. Austin, physician to St. Bartholemew's Hospital in the year 1791, published a Treatise on Stone in the Urinary Bladder, in which he states that 'the main result of his inquiries has been, that the stone is formed generally in very small parts and often in no degree whatever, from the urine as secreted in the kidneys, but chiefly from mucus produced from the sides of the different cavities through which the urine passes.' The late Mr. Chevalier, in the second volume of the Medico-Chirurgical Transactions, published some observations which were intended to confirm Dr. Austin's hypothesis. These notions, however, attracted but little attention, even when first promulgated; nor is this to be at all wondered at, when we consider how much they are at variance with a multitude

of well known facts. Nevertheless, they are not absolutely without foundation. Dr. Austin was in an error, inasmuch as he mistook the exception to the general rule, for the rule itself; but no further. It is true that calculous matter in by far the greatest number of instances is a deposit from the urine, but under certain circumstances it is generated by the mucous membrane of the bladder. How this happens was first distinctly explained by Dr. Prout.

I have described to you, in a former lecture, the phenomena which belong to chronic inflammation of the mucous membrane of the bladder. One of its effects is the secretion of a ropy adhesive mucus in a most abundant quantity. This mucus is highly alkaline, containing the carbonate of soda, which is a soluble salt; containing also the phosphate of lime, which is insoluble. The latter is frequently seen presenting the appearance of white streaks in the mucus. In some cases it is produced in still larger quantity, and it comes away, not in the form of white sand, but in that of small white irregularly-shaped masses, resembling fragments of mortar." 7.

This formation of the phosphate of lime may take place where there is no triple phosphate in the urine, and sometimes on testing you find the urine itself acid, though the mucus is alkaline. To succeed properly in this experiment, the urine and the mucus should be tested just as the latter has been deposited. If you wait some time longer putrefaction begins, ammonia is evolved, and the whole is rendered alkaline. The triple phosphate and phosphate of lime have different origins, and either may exist in the urine without the other. They frequently, however, co-exist, and this combination is probably produced in one of the following ways. The primary disease may be a secretion of alkaline urine in the kidneys. This irritates the membranous surfaces with which it comes in contact, and, if it continues for a certain time, induces chronic inflammation of the mucous membrane of the kidneys and ureters, extending to the bladder, and giving rise to the formation of a large quantity of adhesive mucus, containing the phosphate of lime. Or, the chronic inflammation of the mucous membrane of the bladder may be the primary affection. This cannot last long without affecting the constitution; it excites low febrile disturbance attended with much debility, a state of system very liable to occasion a secretion of alkaline urine in the kidneys. In one or other of these ways the triple phosphate and the phosphate of lime become associated with each other, sometimes one and sometimes the other being the original malady.

The treatment of patients affected with the white sand is to be conducted on very different principles from that which we adopt to prevent the formation of the red. The deposition of the triple phosphate argues great general debility, and whatever increases that debility aggravates the disease. Purgatives must be used with great caution, mercurial purges must be carefully avoided. Alkalies must be carefully avoided also, though Mr. Brodie has frequently seen them given, with the very worst effects, by those who had a notion that alkalies were good for the gravel. It has been said that alkalies are useful where the digestion is bad, although the urine at the time is alkaline. Mr. B. has every now and then seen a case in which small doses of soda were given with advantage, but he is sure that such cases are exceptions to the rule. The principle which leads us to avoid alkalies, leads us to exhibit acids. The vegetable acids are very fit to be employed where they do not disagree with the stomach, and the patient may drink lemonade, or eat oranges or lemons in the necessary quantity. If the vegetable acids disagree with the stomach, as they frequently do, the mineral acids may be

substituted for them : from five to ten minims of the muriatic acid, or from fifteen to forty of the diluted nitric being given three times daily. The dose of the acid must be regulated by a frequent examination of the urine with test papers. Tonics, as bark, quina, bitter infusions, sulphate of iron, muriated tincture of iron, are likely to be useful. The diet should be plain, rather generous, consisting of a due mixture of animal and vegetable food. Fermented liquors may be taken in moderate quantity, and, for the most part, the acid wines, as Hock and Moselle, are preferable to others. Dr. Prout has pointed out the good effects of opium, hyosciamus, and other narcotics. If opium does not interfere with digestion, and in these cases it generally does not, from half a grain to a grain may be given twice or three times daily. The patient must avoid all severe exercise of body or mind, and if possible he should be agreeably occupied by some light employment. Courses of mercury, nay, a single dose of it, are likely to be injurious, as is the case with antimony and other diaphoretics.

"Where the phosphate of lime is deposited in consequence of a ropy mucous secretion from the mucous membrane of the bladder, you are in the first instance to endeavour to remove the cause on which the secretion depends, namely, the chronic inflammation of the membrane. I must refer you here to the observations, which I made in one of my former lectures, briefly recapitulating, however, what I then said on the subject. Bleeding not only does not tend to diminish the inflammation, but is actually injurious. The first thing to be done is to discover the cause of the inflammation, and to remove it, if possible. It may depend on stricture of the urethra, and may be relieved immediately on the stricture being dilated with a bougie. It may depend on a partial retention of urine in the bladder, in consequence of an enlargement of the prostate gland. The bladder must then be emptied artificially by the introduction of a gum catheter, once, or twice, or three times daily. It is seldom advisable in these cases to keep the catheter constantly retained in the bladder, for then the catheter becomes in itself a source of irritation, keeping up the inflammation of the bladder, and adding to the cause, on which the deposition of the phosphate of lime depends. Perfect rest in the horizontal posture, opium, suppositories, and narcotics by the mouth, will be useful also. The exhibition of the decoction of the root of the *pareira brava* is, in many instances, productive of excellent effects. It has a remarkable influence over the secretion of the ropy alkaline mucus. Injections into the bladder of warm water, and even of a weak solution of nitric acid, are sometimes useful; but of the cases in which these last remedies are to be recommended, I shall speak to you more particularly in a future lecture.

Where these two diseases, namely, the secretion of the triple phosphate of ammonia and magnesia by the kidneys, and of the phosphate of lime by the bladder, are co-existent (and this is a very common occurrence) you must combine the two modes of practise which I have just described with each other. They are quite compatible, and in fact there are very few of the remedies which are useful in the one case which are not also useful in the other." 8.

II. RENAL CALCULI.

There are various kinds of renal calculi, differing from each other in chemical composition; some of frequent, and others of rare occurrence. The most common are those composed of *pure lithic acid*; they are generally of round or oval form, of light brown colour, and tolerably smooth on the surface. Next in order of frequency are the *oxalate of lime*, or *mulberry calculi*; of dark colour, usually of irregular figure, with a number of small prominences on the surface. Thirdly, the *triple phosphate of ammonia and magnesia* is sometimes deposited in the kidney, but so far as Mr. Brodie

knows, a renal calculus is never composed entirely of this salt. Where a calculus has been lodged in the kidney for a considerable time, the triple phosphate is found to constitute its external layer, but the nucleus is either lithic acid or oxalate of lime. Fourthly, phosphate of lime calculi are occasionally formed in a diseased kidney, probably not from the urine, but from the other secretions of the organ. Mr. Brodie has in his collection two kidneys entirely filled with calculi of this description.

Renal calculi, composed of lithic acid, chiefly occur in those who have led luxurious and indolent lives, and begin to form, in most instances, at about forty years of age. Many such persons are so liable to gout, the two affections sometimes alternating, at others running on together. Some individuals void a great number of these calculi in succession. We find them of various sizes, from that of a pin's head to that of a horse-bean. Oxalate of lime calculi are much more rare, and when the disposition of them exists they are not formed in such numbers as the lithic acid calculi. A patient may void one and never void another, or he may pass a second after a lapse of many years. In one instance Mr. Brodie discovered five or six in one kidney after death; which was occasioned by extensive suppuration of the organ, and complete disorganization of its glandular structure. In reference to Mr. Earle's opinion that the formation of renal calculi may frequently be traced to a local injury affecting the loins and kidney, Mr. Brodie observes:—

“First.—Where a disposition to form calculi exists, a mechanical injury may (I doubt not) determine the disease to one kidney rather than to the other; but this disposition is so manifestly connected with a particular state of the system, and peculiar habits of life, (especially in cases of lithic acid calculi,) that we seem to be scarcely justified in regarding it as arising altogether from the agency of a local cause.

Second.—It is not impossible that, in some cases in which a mechanical injury has preceded the formation of calculi in the kidney, the first effects of it has been to occasion disorganization of the glandular structure and abscess, and that the calculi generated under these circumstances have been composed of the phosphate of lime, derived, not from the natural secretion of the urine, but from the morbid secretions of the diseased parts; and corresponding to the concretions of the same kind which are not unfrequently met with in other diseased textures.” 66.

The following very accurate account of the symptoms produced by the presence of a renal calculus, and its descent along the ureter is deserving of attention.

“When a small calculus is formed in the kidney, it usually occasions some degree of pain in the corresponding loin, and the urine is observed to be tinged with blood, especially after any jolting exercise. These symptoms, however, are by no means constant, and it often happens that the patient has no suspicion of his labouring under the disease until the calculus begins to descend from the kidney into the bladder. Even in its passage along the ureter, if the calculus be very small it may be productive of a little or no inconvenience. If, however, it be large enough to occupy the whole diameter of the ureter, or in any degree to stretch or distend it, there is considerable suffering. When the calculus first enters the ureter, there is usually pain, referred to the region of the kidney and groin. The pain is often very severe, and in that case attended with sickness and vomiting, prostration of strength, cold extremities, a feeble pulse, and a pallid countenance; in short, the patient is in what is commonly called a state of collapse. These symptoms are followed by pain referred to the inside of the thighs and the testicle; and frequently the testicle is drawn up—

wards to the groin by a spasmodic contraction of the cremaster muscle: no relief is experienced until the calculus has escaped from the lower orifice of the ureter, and entered the bladder; but as soon as this has happened, the patient's tortures (for they truly deserve that appellation) are at an end. The time occupied by the passage of the calculus along the ureter varies in different cases, according to the dimensions and figure of the calculus, and the impulse which it receives from the current of urine behind it. Sometimes the calculus may reach the bladder almost immediately; at other times it may be lodged in the ureter for many hours, or even for two or three days. Where the passage of it is thus protracted, the parts, to which the pain is sympathetically referred, becomes tender to the touch, and the testicle not unfrequently is actually inflamed and swollen, the inflammation of it continuing for some time after the cause which produced it has ceased to operate." 66.

Amongst the higher and more luxurious classes of society, and it is usually in an individual likely to suffer from gout, we sometimes remark a somewhat similar train of symptoms, although the cause is wholly different. The patient complains of pain, at first in the region of the kidney, then extending downwards in the direction of the spermatic cord to the groin; afterwards there is a frequent desire to make water, the effort being attended with considerable, and sometimes violent suffering. The urine is scanty, of deep pink colour, depositing a pink sediment; when tested, unusually acid. If not relieved by art, such symptoms may continue for several days—if suitably treated, they may subside in a few hours. Cupping on the loins; colchicum, at first in the dose of a drachm and a half, followed by two doses of half a drachm at intervals of four hours; and a senna draught will probably complete the cure. Mr. B. imagines that there is gouty inflammation of the kidney.

In most cases, a kidney-calculus gets into the bladder soon after its first formation; but in some it remains for a considerable time in the kidney, and is dislodged at last by some accidental circumstance. This happened to an old gentleman who was overturned in a carriage with some ladies. On reaching home the bladder was much distended—he strained violently to make water, and at length a kidney-calculus, having the form of one of the infundibula, was projected with much force into the chamber-pot. In other cases, a long impacted kidney-calculus is dislodged in consequence of some change which takes place spontaneously in the organ, independently of mechanical injury. Sometimes calculi detained in the kidney produce no inconvenience, indeed no symptoms whatever, being frequently found after death, when they had not been suspected during life. In other instances there is pain in the loins, and the urine is occasionally tinged with blood, especially after jolting exercise, as riding on horseback. Though these symptoms seldom fail to indicate calculus in the kidney, they may arise from other causes. Mr. Brodie has once seen them produced by fungus hæmatodes in the kidney. In other cases he has thought that bloody urine depended on a relaxed state of the vessels of the kidney, but no dissection was obtained to corroborate the suspicion.

Dissection of the bodies of those who die with calculi of the kidney throws great light upon the subject. In the early stages of the disease, small portions of calculous matter are found imbedded in the mamillary processes; afterwards the calculous concretion partly projects into the infundibulum; by and bye it escapes into the infundibulum and pelvis of the kidney altogether. Probably it is now propelled by the urine into the bladder. It

may remain in the kidney, increase in size from fresh deposits of calculous matter, or even grow so large as to occupy the whole of the pelvis of the kidney, extend into the infundibula, assume the form of the parts in which it is lodged, and bear some resemblance to a piece of madrapore. In these cases, the outer layers are commonly composed of the triple phosphate, the nucleus being lithic acid or oxalate of lime, more frequently the former.

The ureter is seldom completely obstructed. When it is so, the urine necessarily becomes accumulated in the infundibula—these are dilated into large membranous cysts—the glandular structure is expanded, and in a great measure absorbed, so that in some cases the kidney is at last composed of a large membranous bag, consisting of a number of cells, communicating with each other and containing urine. Sometimes the kidney is wasted, the only remnant being a membranous substance, adhering to an irregularly-formed calculus. In such circumstances, the other kidney supplies the place of the affected one, and does double duty in consequence. The two changes in the state of the kidney alluded to belong to the same series of events. The kidney having been dilated to a mere membranous cyst, the urinary secretion ceases, the accumulated urine is absorbed, the cyst collapses and contracts, and at length it becomes a mere capsule, in which the calculus remains imbedded. An enlarged kidney forms a tumour to be felt readily in the abdomen of a thin person. The preceding statements will account for the occasional disappearance of such tumours.

A calculus lodged in the kidney not unfrequently induces ulceration and supuration of that organ. The pus may escape with the urine, and pass into the bladder, when there is little or no constitutional disturbance, the symptoms being local, and rather directing attention to the bladder than the kidney. In a lady the symptoms were, a frequent desire to make water, which was voided only in small quantities—a cutting pain referred to the neck of the bladder—at first muco-purulent secretion, and afterwards true pus in the urine. Sometimes the abscess thus produced in the kidney has no exit into the ureter. There is a different order of symptoms.

“There is pain referred to one loin, extending to the groin, sometimes upwards towards the scapula, or forward across the abdomen; not in general aggravated by exercise. Not unfrequently there is an irritable state of the bladder, though this symptom does not exist in the same degree as where the puss escapes with the urine. The patient suffers from a sense of remarkable lassitude and depression, and he has occasional rigors; sooner or later he falls a victim to the malady, and the following symptoms mark his approaching dissolution. The pulse is small; there is a total incapability of mental as well as of bodily exertion, an utter listlessness and disregard of all external circumstances. The pulse becomes so feeble that it can be scarcely felt, and the extremities are cold. Sometimes there is sickness and vomiting, at other times a diarrhœa, which it is scarcely possible to check by the most powerful astringents. The urine in these cases is generally secreted in very large quantity. It is also albuminous, being rendered opaque by heat and by the addition of nitric acid. Albuminous urine is met with almost invariably where there is abscess of the kidney; but you are not to conclude that this alone is a certain sign of the existence of abscess. Chronic inflammation of the kidney may cause the urine to be albuminous, although there is no abscess; and an admixture of even a small quantity of blood with the urine will produce the same effect.” 69.

In a few rare cases an abscess, connected with calculi of the kidney, presents and bursts in the loins. Some have spoken of an operation for the extraction

of calculi from the kidneys. The proposal is absurd; but nephrotomy is very practicable where Nature, by the formation of an abscess, has pointed out the exact situation of the calculi. And now of the treatment of renal calculi.

A person is voiding a number of small lithic acid calculi in succession. Those which are formed cannot be dissolved, but, by attention, new calculi may be prevented from being generated. Purgatives and alkalies, the colchicum where there is a disposition to gout, attention to diet, and to modes of life, are the means to be employed. Little can be done in the way of prevention, where the calculus is of the mulberry kind; fortunately this is much less likely to occur than the lithic acid. The formation of the phosphate of lime calculus in the kidney always indicates disease of that organ, probably abscess. Whatever it be, we cannot be wrong in administering the mineral acids. When a calculus is passing from the kidney to the bladder, we can do but little; we may give opium in large quantity when the pain is unusually intense, the hip-bath and abundance of diluting drinks. Mr. Brodie has sometimes thought that the patient derived benefit from the exhibition of an active purgative.

If there is reason to suspect that a stone is lodged in the kidney, it is desirable that it should be made, if possible, to pass into the ureter, before it is so large as to be incapable of being conveyed along it into the bladder. Hard trotting on horseback generally produces bloody urine; which shews that the calculus is made to undergo some change of position, a favourable circumstance. Diluents and diuretics may be useful; so are cupping or leeches where there is considerable pain in the loins and neighbouring parts. Sometimes the application of a belladonna plaster is serviceable. Mr. Brodie thinks that setons and issues are seldom so, except where disease in the kidney, especially abscess, has been induced. In such a case they are often of marked benefit. Where abscess is confined in the kidney, and there are symptoms of depression and exhaustion, art can afford little or no assistance; the patient struggles against his fate in vain.

When a calculus is impacted in the ureter, it might be supposed that this tube would continue to be dilated above the obstruction, until it should give way. Morgagni quotes such a case from another author; but Mr. Brodie relates two cases which prove that it does not always happen. In one, no urine flowed, nor could any be drawn off by the catheter in the bladder, the patient became comatose, and died convulsed on the twelfth day after the commencement of the attack. On dissection, there was no urine in the bladder. In one kidney there were several calculi—in the other none. In the ureter of the latter, high up, a calculus was wedged in. In a case which occurred to Mr. Travers, both ureters were completely obstructed by calculi. As in the first case, there was an entire suppression of urine.

CALCULI OF THE BLADDER.

Any foreign body retained in the bladder for a certain length of time is liable to have calculous matter deposited upon it; and a calculus being thus generated, increases in size more or less rapidly, according to the composition of the urine. The most ordinary nucleus of a calculus, is one which has descended from the kidney; but a hazel-nut, a piece of flower-stalk, any foreign substance, in short, accidentally introduced into the bladder, may give rise to it. In the museum of the hospital are several small calculi,

obtained from the bladder of a female, chiefly composed of the phosphate of lime, which indicates disease of the mucous membrane of the bladder, and each having a small fine hair, running longitudinally through its centre. Mr. Brodie suspects these hairs to be of a similar character with those which are occasionally found in encysted tumours and in other diseased structures. Mr. Brodie attended a gentleman with calculus in the bladder, who finally died of disease in the kidney. Every now and then Mr. B. detected small hairs in his urine, which he had reason to believe had come from the kidney. There was no post-mortem examination in either patient.

In case of diseased bladder, where the mucous membrane is affected with chronic inflammation, earthy matter, composed chiefly of the phosphate of lime, is formed in small masses resembling mortar; any one of which may be retained in the bladder, and is liable to have calculous matter deposited upon it. Calculi, we need scarcely say, differ in their composition; and, for the light which modern investigations have thrown upon the subject, we are indebted to Wollaston, Prout, Brande, and other scientific chemists, whose names are familiar to the philosophical world. For the description of the various calculi we may refer to Mr. Brodie's summary, or to any standard work upon chemistry; it is sufficient for us here to enumerate their names. The substances then which enter into the composition of calculi of the bladder are—lithic acid—oxalate of lime—the triple phosphate of ammonia and magnesia—the phosphate of lime—the fusible calculus, or mixture of the two latter—the lithate of ammonia—lithate of soda—cystic oxyde—carbonte of lime, very rare—xanthic oxyd—and lastly, fibrinous calculus. Mr. Brodie found the latter in the bladder of a patient after death, who during life, had not been suspected of labouring under stone. The kidneys had the appearance described by Dr. Bright as existing, when the urine is albuminous, but the urine had not been examined.

“In some cases we find a calculus composed throughout of one of the substances, which have been described, nearly pure; but at other times we find these substances variously combined with each other. The best mode of examining a calculus is to have it sawn through the centre. We then find, that in some of the compound calculi, the different substances are disposed in layers, the lithic acid distinct from the oxalate of lime; the oxalate of lime distinct from the triple phosphate, and so on; while in others they are intimately blended together.

It is only when they are divided in the manner which I have mentioned, that we can learn the true history of the formation of calculi. As Mr. Brande long ago observed, the centre or nucleus is generally either lithic acid or oxalate of lime. In many cases the additions to the calculus are of the same chemical composition with the nucleus; in other cases, we find the lithic acid deposited on the outside of the oxalate of lime; and more rarely, the oxalate of lime is deposited on the surface of the lithic acid. The deposit of lithic acid, or oxalate of lime may take place in the bladder where there is no evident disturbance of the general health. If the general health becomes affected, and the bodily powers of the patient are impaired, either from the irritation of the stone in the bladder, or from any other cause, the urine becomes alkaline, and, in consequence, the subsequent additions to the calculus are formed of the triple phosphate of ammonia and magnesia. When the calculus has existed for some time in the bladder, it frequently happens, and indeed it always happens sooner or later, that the mucous membrane becomes inflamed; adhesive, tenacious mucus is secreted, which contains phosphate of lime; and this, being blended with the triple phosphate, forms the fusible calculus. Calculi formed in the ducts of the prostate gland, as I shall explain to you hereafter, are composed of phosphate of lime, pure, or

nearly so; whatever may be the condition of the bladder, it very rarely happens that you find a simple phosphate of lime calculus in it. The phosphate of lime may be deposited in small masses, as I have explained to you formerly, but this nucleus being exposed to the contact of the urine, and the health becoming impaired, as always is the case under these circumstances, the triple phosphate is added to the phosphate of lime, so as to constitute a fusible calculus.

For these latter observations I am indebted to Dr. Prout. He has also furnished us with a knowledge of the following most important and interesting facts in the history of calculus formations. The phosphates very rarely form the nucleus of a calculus; but being once deposited, they continue to be so, and are never followed by other depositions. The phosphates may succeed the lithic acid, or the oxalate of lime, but neither of these ever succeed the phosphates. If the external surface of a calculus is composed either of the lithic acid, or of the oxalate of lime, you may be certain that there are no phosphates in the interior; whereas, if there are the phosphates on the outside, the general rule, to which there are but few exceptions, is that some other substance lies underneath." 131.

Calculous disorders prevail differently in different classes of society, at different ages, and in different climates and districts. Among the lower classes children are much more subject to them than adults; among the higher classes it is the reverse. The explanation has been already given when speaking of the tendency to lithic acid sand; for lithic acid forms the nucleus of the greater number of calculi. Persons of middle age in all classes are least subject to stone; women suffer less frequently than men, owing partly no doubt to their more temperate mode of life, partly to their greater capacity and simplicity of urethra. Mr. Brodie adverts to Mr. Copland Hutchison's notions respecting the infrequency of calculous disorders amongst sea-faring men. Mr. B. has operated on two officers in the navy, in whom the symptoms came on during actual service. Besides this, we must consider that sailors consist almost entirely of individuals neither very young nor very old, the class least liable to stone. It is altogether difficult to obtain precise data in such an enquiry.

Calculous diseases also prevail in particular districts, for which it is difficult to offer a satisfactory explanation. Thus, in the same district, persons are not only more disposed to lithic acid stones, but also to those of oxalate of lime, and it is not easy to imagine how peculiarities of diet, or of mode of life, should occasion both.

Calculi, for the most part, lie loose in the bladder, but sometimes they are encysted. In one specimen of this kind preserved by Mr. Brodie, there is enlarged prostate gland, which no doubt gave rise to the cyst, by preventing the bladder from being completely emptied. Here the cysts were formed by protrusions of the mucous membrane through the interstices of the muscular coat. In another specimen possessed by Mr. B. the stone was imbedded in a cyst near the fundus of the bladder, but the cyst is formed by dilatation of both the muscular and mucous tunics. The calculus was not so closely embraced by the cyst but that it might occasionally slip out; and it should be mentioned that the severe symptoms of stone during life would come on suddenly every now and then, the patient in general suffering little or nothing. Adherent calculi are very infrequent. It is not very uncommon for a diseased bladder to be incrustated in some part with calculous matter, but that is a very different thing from an adherent stone. Occasionally coagulable lymph is effused from the inflamed

mucous membrane of the bladder, which also secretes the adhesive mucus, containing the phosphate of lime; a portion of this, mixed probably with the triple phosphate from the urine, is deposited on the lymph, just as, after lithotomy, the same sort of deposition will sometimes take place in the wound. In many cases there is only a single stone in the bladder, in others, two or three, or, occasionally, even many more than these. When there are more than one they are more or less polished from attrition, and assume the shape of irregular polyhedra.

The symptoms produced by calculi in the bladder next engage Mr. Brodie's attention. Different individuals suffer in very different degrees; and even the same individual does so at different stages of the complaint. The symptoms vary; 1st, according to the size of the stone, its smoothness, roughness, figure—2dly, according to the quality of the urine, whether too acid or too alkaline, in either case too stimulating—3dly, according to the state of the bladder, for nothing aggravates the symptoms so much as inflammation of the mucous membrane of the bladder. The symptoms themselves need not detain us, so many excellent descriptions of their course and order being in every body's possession.

In some instances the disease may exist for many years, without the symptoms becoming severe, but in general they are progressive and reach their height in the course of two or three years.

"At first the patient's general health is unaffected; but by-and-by the health begins to suffer, the urine becomes alkaline, the triple phosphate is deposited on the original stone. Now all the symptoms are much aggravated. The alkaline urine is more stimulating to the bladder than healthy urine, and this is one cause of the patient's increased sufferings. Another is, that that state of the general health which causes the alkaline urine to be secreted by the kidney, is attended with an increased or morbid sensibility of the nervous system generally.

As the disease advances, the continued irritation kept up by the stone, induces inflammation of the mucous membrane of the bladder. There is now a still further augmentation of the patient's sufferings. The stone is rolling about in an inflamed bladder, and you know how the sensibility of every organ in the body is increased by inflammation. The existence of this state of things is indicated by the greater pain, and by the desire to make water being almost constant; by the urine coming away offensive to the smell, soon becoming putrid and ammoniacal, and depositing the usual thick tenacious mucus streaked with blood. This mucus, as I have already explained to you, leads to the formation of the fusible calculus; and all that I have now stated will lead you to understand that different kinds of calculus are attended with different degrees of suffering. A patient with a simple lithic acid calculus, suffers less than one with a calculus composed externally of the triple phosphate; and the latter less than a patient with a fusible calculus. The oxalate of lime or mulberry calculus, on the whole, occasions more distress than the lithic acid calculus; probably on account of the irregularities which so frequently exist on the surface of the former: but it occasions less distress than the calculi composed of the phosphates." 155.

Patients with enlarged prostate gland are particularly liable to stone in the bladder, in consequence of the organ being never perfectly emptied, and small kidney calculi or lithic sand being detained in it. Sometimes an enlarged prostate occasions a calculus in another manner; the mucous membrane of the bladder becomes inflamed, the mucous which is secreted deposits phosphate of lime in small mortar-like masses, and each of these becomes the nucleus of a calculus. On examining the body, you find several calculi of irregular forms, small size, of white colour, and rough on the surface.

"Patients with diseased and enlarged prostate do not in general suffer more from the

stone in the bladder than other individuals. Indeed I am inclined to believe that, on the whole, they suffer less; probably in consequence of the tumour of the prostate preventing the stone falling down on the neck of the bladder. I have, however, seen three cases, in each of which there was a stone in the bladder, complicated, not only with an enlarged, but ulcerated prostate; and the sufferings of these patients were greater than I had ever before witnessed in persons labouring under the same disease. They were, indeed, most horrible. In two of these cases, the surgeon who was in attendance (as I think) indiscreetly performed the operation of lithotomy. One of them died in about five minutes after the operation; the other became immediately comatose, and died in a few hours. The third patient was admitted into our hospital, under the late Mr. Ewbank. The symptoms were precisely similar to those which existed in the two other cases, and Mr. Ewbank, on the result of these cases being stated, very properly determined not to perform an operation, although the man had come into the hospital for the purpose. The poor fellow died in two or three days afterwards, and, on examining the body after death, we found a large stone and an ulcerated prostate, as had been anticipated." 135.

Calculi in the bladder frequently induce spasmodic stricture, and from the increased efforts to expel the urine, the muscular coat of the bladder always becomes thickened. Stone in the bladder admits, in the male sex, of nothing approaching to a natural cure. It may be a year, it may be ten, or even more, before dangerous symptoms arrive, but sooner or later the stone will prove the cause of death. The immediate cause of the patient's destruction is, in the great majority of instances, inflammation of the mucous membrane of the bladder. Chronic inflammation may exist long, and admit of recovery, but if it becomes acute, or even approaches to it, the situation of the patient becomes dangerous, nay, desperate. The inflammation extends up the ureter to the kidneys, and even their glandular structure becomes affected. In a patient of Mr. Keate's who had laboured under stone for many years, the kidneys were converted into a substance resembling fungus hæmatodes, though not decidedly such. Sometimes abscesses form in the kidneys, at others there is a collection of muco-purulent fluid found after death in the pelvis and infundibula. Sometimes inflammation extends to the loose cellular membrane round the bladder, and putrid sloughy abscesses are formed in it.

In a very few cases the bladder ulcerates, and the stone escapes from its cavity. A remarkable case of this kind occurred to Sir Everard Home. There was a fistula in perineo, he operated for the stone, and the latter was found lying in an ulcerated cavity in the perineum. The man died, the bladder was very small and ulcerated, and the ulcer communicated with the ulcerated cavity in the perineum.

Mr. Brodie suspects that abscess in the cellular membrane of the pelvis, unconnected immediately with the bladder is not an uncommon occurrence in those cases in which the patient is allowed to linger on and die of the disease. In a patient who died in a very short time after the operation of lithotomy, a very large abscess was found in the pelvis, communicating with the bladder by an ulcerated opening on one side of its neck. In another case, there was an abscess, occupying nearly the whole pelvis, but not communicating with the bladder. The patients died so soon after the operation that it appears evident to Mr. Brodie, that the abscesses must have existed before its performance.

Periscope;

OR,

CIRCUMSPECTIVE REVIEW.

"Ore trahit quodcumque potest, atque addit acervo."

I.

TO THE EDITOR OF THE MEDICO-CHIRURGICAL REVIEW.

*Apothecaries Hall,
April 14th, 1831.*

Sir,

Numerous applications continuing to be made by gentlemen in almost every department of medical science, desiring to be recognised as lecturers by the Court of Examiners of the Society of Apothecaries, the Court feel anxious, in order to save the time now necessarily expended in correspondence with each successive applicant, that the Rules which the Court have laid down for their own guidance in the recognition of the various courses of lectures required by them should become generally known to the profession: they have therefore desired me to transmit these rules to your Journal, with a request that you will be kind enough to give them an early insertion.

I have the honor to be, Sir,
Your obedient Servant,
JOHN WATSON,
Secretary to the Court of
Examiners.

Rules to be observed in the Recognition of Lecturers, extracted from the Minutes of the Court of Examiners, dated Nov. 18th, 1830.

Resolved,

1. That any person being a Member of the Court of Examiners shall not be recognised as a lecturer on any branch of medical science.
2. That the Court will not recognise any new teacher who may give lectures on

more than two branches of medical science; nor will they sanction a teacher already recognised in giving lectures on any *third* branch of the science, if already he gives lectures on *two*.

3. That the Court will not recognise a teacher until he has given a public course of lectures on the subject he purposes to teach; but if, after such preliminary course of lectures, the teacher should be recognised, the student's certificate of attendance on that course will be received.
4. That the Court will not recognise a teacher until he has produced very satisfactory testimonials of his attainments in the science he purposes to teach, and also of his ability as a teacher of it, from persons of acknowledged talents and distinguished acquirements in the particular branch of science in question.
5. That satisfactory assurance shall also be given that the teacher is in possession of the means requisite for the full illustration of his lectures, viz. that he has, if lecturing on CHEMISTRY, a laboratory and competent apparatus: on MATERIA MEDICA, a museum sufficiently extensive: on ANATOMY and PHYSIOLOGY, a museum sufficiently well furnished with preparations, and the means of procuring recent subjects for demonstration: on BOTANY, a hortus siccus, plates or drawings, and the means of procuring fresh specimens: on MIDWIFERY, a museum and such an appointment in a public midwifery institution as may enable him to give his pupils practical instructions.

6. That the *Lecturer on the Principles and Practice of Medicine* must be, if he lectures in London, or within seven miles thereof, a Fellow, Candidate, or Licentiate of the Royal College of Physicians of London; and if he lectures beyond seven miles from London, and should not be thus qualified, he must be a Graduated Doctor of Medicine of a British University of four years standing, (unless previously to his graduation he had been for four years a Licentiate of this Court).
7. That the *Lecturer on Materia Medica and Therapeutics* must be a fellow, Candidate, or Licentiate of the Royal College of Physicians of London, a Graduated Doctor of Medicine of a British University of four years standing, (unless previously to his graduation he had been for the same length of time a Licentiate of this Court,) or he must be a Licentiate of this Court of four years standing.
8. That the *Lecturer on Anatomy and Physiology* must either be recognised by the Royal College of Surgeons of London, or must be a member of that College of four years standing.
9. That the *Demonstrator of Anatomy* must either be recognised by the Royal College of Surgeons of London, or must be a Member of that College.

We give the Court of Examiners all credit for good intentions in the curricula which they issue, from time to time, for the guidance of the aspirants in medicine; but we confess that one or two of the foregoing regulations appear to us to indicate a strong disposition in the Court to assume unlimited power over the teachers as well as the pupils. Lecturers of 20 years standing must now, in fact, present themselves at Apothecaries' Hall (by the 4th section) and convince the Court of their capacity to teach. Dr. Clut-terbuck, Dr. Agar, Dr. Hue, Dr. Chambers, &c. must all repair to the Hall! In the 5th

Section, there is a range given for every species of tyranny and oppression if the Court were that way inclined, in consequence of the indefinite terms used. Thus, in chemistry, the laboratory must have a *competent* apparatus. The anatomist must have a *sufficiently* well furnished museum, and so on. Now it is clear that the mere opinion, the caprice, or even the prejudice of that member of the Court who examines the domicile of the lecturer, may fix the *sufficiency* high or low, according to his humour that day! If laws are made, and meant to be enforced, they should be definite, and not left wide open for every interpretation which the judge chooses to give them.

II.

ON SMALL AND REPEATED BLEEDINGS IN
HÆMOPTYSIS AND INCIPIENT PHTHISIS.
By Dr. J. CHEYNE.

[Dublin Hospital Reports, Vol. V.]

THESE observations are in the form of a letter from Dr. Cheyne to Dr. Graves, and the author commences by informing us that he has often seen phthisis usher itself in without any unequivocal symptom of pulmonary affection, but apparently as "a fever of an inflammatory kind, with quick pulse, hot skin, flushed countenance, white tongue, high-coloured urine, &c." The disease might have passed for a general fever, there being no local disease prominent. Some alleviation of symptoms usually takes place, after a period of two or three weeks, and the physician promises recovery, but is deceived as phthisis either rapidly advances, or takes a slow but fatal course.

"In the course of such attendances, the physician at last begins to feel some surprise at the continued quickness of the pulse; he fears that all cannot be right, while the patient, although he eats well and walks about, does not gain strength; the breathing too is not quite natural, an occasional dry cough occurs, of which the patient seems un-

conscious, and emaciation is palpable. The disease has now made some progress, and another physician being called in, the case is looked at with a new eye; night perspirations are discovered; on minute inquiry hectic fever is more than suspected, and the case is pronounced to be incipient phthisis. It is in the more chronic cases to which I have alluded, that small bleedings of six ounces practised once in four or five days have sometimes apparently proved sanative."

There is a species of hæmoptysis, says Dr. Cheyne, or rather of bronchial hæmorrhage, which runs a course of two or three weeks, and which is also attended with symptoms of general fever; but in his judgment both the fever and hæmorrhage are symptomatic of incipient consumption. In these cases recovery seems to take place under antiphlogistic treatment; but the recovery is often not solid. Gradual emaciation is observable, with that ominous dry barking cough, which is often so long a solitary symptom of slowly advancing tuberculation. After some months of declining health, the disease advances more rapidly, and hectic fever concludes the sad history. "Patients of this description may sometimes be saved by timely bleedings, not exceeding six ounces every sixth or seventh day, with a regimen suited to the strumous diathesis."

"Hæmoptysis in its more common form of pulmonary apoplexy, as it is fancifully called by the French pathologists, may sometimes be successfully treated in the same way, namely, by small bleedings repeated at stated intervals. But these are topics which would require to be more carefully handled than my time at present will permit; they would best be explained, not by the hospital physician, but by him who practises extensively among the upper classes; but unhappily they who, advancing in life, obtain lucrative employment, are often obliged to forsake the favourite pursuits of their youth for occupations neither so interesting nor agreeable, and their matured experience, which often contradicts

the conclusions of youthful zeal, is unproductive to all but themselves."

Dr. Cheyne next proceeds to state a case which first confirmed his opinion respecting the applicability of small bleedings to hæmoptysis. It was that of a gentleman who had long laboured under bronchial hæmorrhage, so obstinate that it resisted all the ordinary methods of treatment. Dr. C. observed that the hæmorrhage returned upon excitement of any kind taking place. Even the flurry produced by the Doctor's carriage coming up to the door invariably caused a slight hæmoptoic attack. This suggested the employment of small artificial bleedings. The case is detailed by the patient himself, who is a clergyman. These details we shall abridge.

When about the age of 15, (in the year 1807,) the hæmoptysis commenced, and continued annually from that time till 1823, in which year the attack was so serious that change of air was recommended, and he went to Nice, and ultimately on to Rome. At Rome, and afterwards at Geneva, the bleeding continued, though he had the skilful attendance of Dr. Clark. In November, 1824, he returned to Ireland, and in the course of the Winter, the complaint increased in frequency and extent of hæmorrhage. Emaciation was the consequence. In February 1825, the plan of small bleedings was commenced. For some months previously he had daily at least three discharges of blood from the lungs.

"About the middle of February, immediately after an attack, six ounces of blood were taken from the arm. For three days after he had no attack, and on the fourth a slight one, after which six ounces of blood were again taken. No attack for ten days. The attacks now gradually became less and less frequent, but every week six ounces of blood were taken from the arm. In the beginning of May he went to the country, with directions to continue the stated bleedings, which he did regularly every week, using the lancet himself, and thus being enabled at once to check an attack. The blood was invariably much cupped and

buffed; the complaint gradually subsided; health and strength slowly returned. During the whole of the ensuing Winter he was able to take exercise in the open air without suffering from cold. In the month of June, 1826, he again entered upon the duties of his profession, from which he has never since been obliged to absent himself, and with the exception of an accasional attack, which occurs generally in the Spring and Autumn, and is invariably checked by the lance; he is now in as good health as he has ever been at any period of his life."

It is curious that till these repeated small bleedings were employed, the digestive organs were constantly deranged; but with the abatement of the hæmoptysis, the stomach began to recover its tone, and the bowels to act without opening medicine.

Of late, Dr. Cheyne has frequently prescribed venesection in the more common form of hæmoptysis, and, in some cases, with success. Unfortunately he has no notes of these cases; but some of them are distinctly in his recollection.

"In bronchial hæmorrhage it is not the loss of blood which is destructive to life, but the inflammation and disorganizing process, which is caused by tubercles, of which the hæmorrhage is but a symptom, and often even a means of temporary relief. And considering that not merely has the hæmorrhage been checked by venesection, but the vascular irritation on which it depends, in some sort arrested, I have been led also to try small bleedings once every week or ten days, in what I conceived to be incipient phthisis, and with a degree of success which forbids the relinquishment of that practice. Among other encouraging cases, I may mention that of a young gentleman of a family which consumption had completely ravaged; he came to me last Spring with a dry barking cough (not from cold). There was a portion of the thorax in which respiration was inaudible, and which, on percussion, emitted scarcely any sound, and was also the seat of uneasiness; and emaciation

had already commenced. This patient was relieved by these bleedings, and when I last saw him he said he was quite well, and his appearance did not contradict the assertion.

Both in hæmoptysis and in incipient phthisis, these small bleedings may be practised with safety, and often, if I mistake not, with more advantage than any other remedy in use. To acquire a just view of such cases we ought to consider them as instances of scrofula affecting the lungs, in which an inflammatory state is caused by the presence in that organ of irritating substances, as tubercles doubtless are. In phthisis, these attacks of inflammation in the tuberculated portions of the lungs precipitate disorganization. Phthisis is often, for a long time, only suspected, until uneasiness in the chest, perhaps increased frequency of the pulse, hurry of respiration, and greater debility, prove that inflammation around some clusters of tubercles is more speedily accomplishing the destiny of the patient. If the inflammation were subdued and the general health improved, perhaps it might be within the power of the absorbents to remove tubercles if still in an early stage. This view would justify the exhibition of remedies of opposite kinds. No point is better established than that the scrofulous patient is best treated by nourishing and restorative food and medicine, but there are many cases of scrofula in which we must, for a time, substitute bleeding and an antiphlogistic regimen for generous food and stimulating applications, to prevent the disorganization of a viscus, and of such cases this appears to be one.

In hæmoptysis, venesections act rather as an alterative than a styptic, mere hæmorrhage from the lungs does not justify the measure. Bleeding, however, is amply justified by the existence, during hæmoptysis, of pain, hurried respiration, or any other symptom of parenchymatous or of membranous inflammation.

In cases of hæmoptysis with inflammatory symptoms, venesection may be necessary during the attack, but generally tartar-emetic in nauseating doses, given every

hour, or every two hours, proves a more powerful styptic: one-third or one-fourth of a grain of tartar-emetic in a draught containing also ten or fifteen grains of nitre, a combination which is often powerfully diuretic, will be still more efficacious. But if respiration be natural, and there be no cough, stricture, or pain in the thorax, the case will be better treated by small doses of opium, two or three grains of Dover's powder, for instance, every two or three hours; to minute doses of opium may be added, a couple of grains of superacetate of lead or a dose of Ruspini's styptic.

Finally, small bleedings, practised in incipient phthisis, *enable the physician more safely to enlarge the patient's diet, and to prescribe tonics, such as Griffith's mixture or Heberden's ink.* The treatment which I would recommend in incipient phthisis may be stated in a few lines. Journeying, if practicable, or what is better still, in fine weather, going from shore to shore in the steamers, short residences at Mallow, or the Cove of Cork, or some favourite spot in England, or, during the Summer, in Scotland. Diet as generous as the state of the lungs will permit, in some cases a glass or two of claret, and small bleedings. Sponging the chest and arms with very dilute nitro-muriatic acid, or with five parts of Mindererus's spirit; and one of spirit of rosemary: an issue over the most suspected portion of the lungs, or a succession of blisters, after each bleeding, not much larger than a dollar. A light bitter two or three times a day, with twenty or thirty drops of laurel water, or the nitro-muriatic acid internally, or perhaps some preparation of iron. If I had time I would explain my reasons for rarely sending patients, in any stage of consumption, to the continent of Europe."

Whatever may be Dr. Cheyne's reasons for this resolution, there is reason in it. We too are of the same opinion, and our reasons will be before the public by the time this Number sees the light.*

III.

HOTEL DIEU.

PARACENTESIS THORACIS FOR HYDROTHORAX AFTER PLEURISY. Reported by M. SOLON.

IF we can trust to medical records, the operation of paracentesis thoracis for serous effusion, has often been performed with success; and yet is seldom practised at the present day. This is no doubt owing to the fact that hydrothorax is rarely untended, or rather unproduced by organic disease of the heart or lungs, rendering the operation of drawing off the fluid from the bags of the pleura of little or no avail. Still the distress experienced by the unhappy sufferers is such, that even a temporary relief would often be a great blessing. The only cases where the operation is likely to be of any permanent benefit, are those where severe pleuritis has terminated in considerable effusion, menacing the life of the patient, but where there has been no antecedent organic disease. It is to be borne in mind, however, that immense quantities of effused fluid will be absorbed where the organs are sound. The reporter of the case before us cites a remarkable illustration. M. B. after exposure to severe cold became affected with very acute pleuritis. Venesection and leeching moderated the inflammation, but did not prevent effusion into the left side. This went to such an extent, that the heart was pushed over into the right of the thorax. Nevertheless the one lung sufficed for respiration, and the patient did not suffer much. Moxas and blisters were repeatedly employed, and at length the resorption was complete. Both sides of the thorax became sonorous and of the same dimensions. We shall now proceed to the case which was operated on at the HÔTEL DIEU.

B. aged 18 years, a painter, was exposed to rain after being much heated, on the 18th September, 1830. The consequence was, a rigor, followed by high fever and the

Part the Third, on the "Moral, Physical, and Medicinal Effects of an Italian Climate,"

* See Dr. Johnson on "CHANGE of AIR,"

usual symptoms of internal inflammation, exasperated by wine and improper diet. He was brought to the Hôtel Dieu on the 27th September, presenting well-marked symptoms of intense catarrhal fever, complicated with those of gastro-enteritis. Nevertheless the thorax sounded well in all parts, while the râle muqueux and râle sibilant showed inflammation as still existing. The usual depletory measures were put in force ; but they did not well succeed, for on the 22d of October, he presented renewed febrile symptoms, with cough, and œgophony near the inferior angle of the left scapula. The œgophony continued to extend, and the sound of that side of the chest to become more and more obscure, till the respiratory sound was quite inaudible, and the ribs of that side immovable in the act of breathing. The respiration in fine became so much embarrassed, that life was menaced if an operation was not performed. A consultation was held, and paracentesis thoracis was determined on. The incision was made at the most prominent part, which was between the seventh and eighth ribs, and when the stilette was removed clear water issued in a full stream. When about a pint of fluid was withdrawn, the man said he could breathe freer, and when another half pint was evacuated, the tube was taken out of the wound, which was carefully closed by diachylon. The man was placed in bed, and felt better in all respects ; but when the thorax was percussed, it was found that the fluid still rose nearly up to the clavicle. He spent a very bad night and became delirious, the respiration more laborious, and died the next day.

On dissection from four to five pints of clear water were found in the cavity of the pleura, which membrane was every where coated with a dense but vascular layer of organized coagulable lymph. The left lung was reduced to a very small compass, and quite impermeable by air. The right lung was sound, and very voluminous. The bronchia were red, and their lining membrane thickened. There were marks of acute inflammation in some portions of the

mucous membrane of the intestines.—
JOURN. HEBDOMAD.

The foregoing case is not very encouraging for the operation in question. Probably had it been performed at an earlier period, and more of the fluid drawn off in the first instance, the relief would have been greater, if not more lasting.

IV.

GUY'S HOSPITAL.

Hoo Loo.

THIS unfortunate inhabitant of the celestial empire traversed many thousand leagues of ocean to lay his bones in a foreign clime ! It was well observed by the poet of Nature that, it may sometimes be better to bear those ills we have, than fly to others that we know not of. We were quite convinced, and we mentioned our conviction to more than one person, before the operation, that no human being, and least of all an Asiatic, would survive the removal of such a tumour as *Hoo Loo* presented. Nothing could exceed the dexterity and intrepidity with which this terrible operation was performed by Mr. Key—except the fortitude, patience, and heroic courage with which it was borne by the unfortunate Chinese ! The melancholy result of the operation has not, of course, altered the opinion which we formed previously to its performance. The farinaceous diet and the phlegmatic temperament of an Asiatic, control, no doubt, the range of inflammation that must supervene on wounds or operations ; but the same circumstances limit his power of withstanding the pain of incisions, and the exhaustion of hæmorrhage. The fact, too, of the genital organs being included in the morbid growth, was a fearful and formidable barrier to the success of the operation. The event shewed, and it was doubtless anticipated by the surgeons, that these organs must be sacrificed in the removal of the tumour. It is true that a somewhat similar operation

was performed, with a fortunate result, by M. Delpech, as recorded in a former Number of this Journal; but we do not think that the English surgeon had half the chance of success which encouraged the able Professor of Montpellier. It is with deep regret that we put on record the following concise narrative of this terrible operation.

"The face of the patient was then covered, and Mr. Key, taking his station in front of the tumour, commenced the operation. His object, apparently, was to make three flaps, of such a form and extent, as would cover the penis and the testes when they should be relieved from the tumour. The first flap was made on the anterior part of the tumour; the others on either side. The former of these would have covered the penis, and the two others (which were made semilunar in figure with the convexities looking outwards) would have accomplished the purpose, when united, of enveloping the testis, and at the same time of forming the integument of the perineum. The first incision was commenced on the right side, just under the abdominal ring, and being carried obliquely inwards for about an inch, was continued so as to form the semilunar cut, from the lowermost point of which, the knife was again carried inwards, in order, apparently, to leave such a small projection of integument as, with a corresponding piece on the opposite side, might serve to go round the root of the penis. This portion having been reserved, the incision was continued onwards for about four inches in a straight line, and was then turned at a right angle, parallel with the operator, forming a line of about two and a half inches in length. A similar cut was then made on the left side, and connected with that on the right by the parallel or transverse cut. The flap thus formed was now dissected from the tumour and laid back upon the abdomen. The operator then proceeded to lay bare the two cords and the penis, a step in the operation which was performed with very great neatness. Sufficient time had now elapsed for the depressing effects of the operation to exhibit themselves, while the penis and testicles had yet to be dissected out. The

determination to attempt this arose from its having been ascertained that the sexual inclinations of the man were unimpaired, seminal emissions being occasionally experienced. The delay, however, which so intricate a portion of the operation would have occasioned, now induced Sir Astley Cooper to propose that the genital organs should be sacrificed, and the suggestion was promptly acceded to. A temporary ligature was accordingly passed round each of the cords and the penis, and these being divided, the remainder of the operation was pursued solely with a view to the removal of the whole mass. But a period of time elapsed before the conclusion of the operation which must have far exceeded the anticipations even of the most fearful, and by the time the tumour was entirely separated and the exposed parts were closed over, an hour and forty minutes had passed. This tremendous protraction was chiefly occasioned by the intervals which were from time to time allowed the patient for recovery from the fits of exhaustion which supervened. Complete syncope occurred twice, and during the whole of the latter steps of the operation he was in a state of fainting. The quantity of blood lost was variously estimated by those who assisted, and though certainly not large, it was the operator's own impression that the hæmorrhage was the immediate cause of death. It would probably be correct to state the loss at twenty-five ounces, although as few as 14 and as many as 30 were named. Of this quantity, not more, we should think, than a single ounce was arterial; all the ligatures were quickly applied, and with great dexterity. The number of large veins divided was immense, but only three small arteries, besides the two spermatic, were taken up. Immediately after the removal of the tumour, another fit of syncope—if syncope could be said to be at all incomplete for the last half hour—came on, from which the poor fellow did not for a moment rally. No remedies that were directed to overcome this state of collapse had the slightest effect; warmth and friction of the extremities, warmth to the scrobiculis cordis, the injection of brandy

and water into the stomach, and, ultimately, from the suspicion that the loss of blood had been too great, transfusion to the amount of six ounces, taken from the arm of a student—one amongst several who offered to afford blood—were amongst the means resorted to. The heart's action gradually and perceptibly sunk. The patient did breathe after the operation, but that is as much as can be said. Artificial respiration was subsequently, but vainly attempted.*

The tumour weighed 65 pounds when removed, and it appears to have been elephantiasis. Hoo Loo's health and strength seem to have been very little impaired by the enormous growth—a circumstance that adds to our regret that any attempt should have been made to remove it.

V.

ON THE EFFECTS PRODUCED BY POSTURE,
ON THE FREQUENCY AND CHARACTER OF
THE PULSE, IN HEALTH AND IN DISEASE.
By ROBERT J. GRAVES, M.D.

[Dublin Hospital Reports, Vol. V.]

THE influence of posture on the pulse has long been acknowledged ; but hitherto not sufficiently investigated. Dr. Graves, therefore, has laudably dedicated a portion of his time and attention to the subject, and the paper now before us is the result.

"In healthy persons the pulse in the erect posture is more frequent than in the horizontal, by from six to fifteen beats in the minute. If the pulse is but sixty the difference is generally not more than six or eight, and this difference increases with the frequency of the pulse at the time of the experiment : thus, if it has been raised to 90 or 100 by moderate exercise, it is not unusual to find the difference twenty or thirty.

As the muscular exertion necessary to keep the body in the erect posture, might be considered as the cause of this greater frequency, it became necessary to contrive means of placing the body in any desired posture, without the necessity of muscular exertion on the part of the subject of the experiment ; this was effected, and it was found that when the posture was changed by means of such a contrivance the difference between the frequency in the horizontal and the erect postures, was not less than when muscular exertion was used.

I now anticipated, that if the body was placed with the head down and the feet up, a still further retardation of the pulse would be produced ; it was, indeed natural to conclude from the preceding experiments, that posture alone was the cause of the retardation observed in the body when placed horizontally, and consequently, that this effect would be augmented on still more depressing the head, and that the maximum of retardation would occur in the inverted position."

Here, however, experience did not confirm preconceived theory, for no retardation of the pulse was occasioned, nor yet acceleration. In the inverted position, the strength of the pulse was diminished, and often very considerably—a fact that may be explained by the weight of the blood pressing on the aortic valves, and thus necessarily opposing an unusual impediment to its egress from the left ventricle. The pulse is stronger in the horizontal than in the erect posture—consequently its maximum of strength and minimum of frequency are attained together. This, our author thinks, may account for the relief obtained by placing patients in the horizontal posture, in order to avoid syncope. In all other diseases in which Dr. G. has investigated this subject, he has found the difference between the frequency of the pulse in the erect, sitting, and horizontal postures ; but in six cases of *hypertrophy with dilatation of the heart*, no such difference was perceptible, although all these patients, at the time of my making the experiment, were in a debilitated state,

* Lancet, No. 393.

which, it will just now appear is that in which the changes induced by position are the most remarkable." In four of these cases, the existence of hypertrophy with dilatation has been ascertained by post-mortem examination; and of the other two, there can be no doubt of the state of the heart in one of them—while in the other, hypertrophy is more than probable. The following are the results, of a great number of observations, made both in hospital and in private practice, upon the effect of posture on the pulse in various diseases.

"1st. That the greatest difference occurs in patients labouring under fever, or in a debilitated state in consequence of fever or any other cause. It may amount to 30, 40, or even 50, between the horizontal and erect postures.

2dly. That this difference decreases after the first quarter of an hour in most cases, but always remains considerable, as long as the same position is observed.

3dly. That in persons not much debilitated the difference is much less than that stated above, and often does not amount to more than 10.

4thly. That when the patient lies down, the pulse rapidly falls to its former standard.

5thly. That in some the increase in frequency is greater between the horizontal and sitting posture, than between the latter and the erect; while in others the contrary takes place, so that generally the frequency in the sitting posture may be taken as a mean.

6thly. In persons convalescent from fever or acute diseases, I find it is extremely useful to the physician to ascertain the comparative frequency of the pulse in the horizontal and in the erect position. The greater the difference, the greater is the debility of the patient, and consequently the more guarded must his medical attendant be in allowing him to sit up for any length of time, particularly if the pulse on his lying down does not resume its usual degree of frequency."

Our author cannot conceive any plausible reason for this effect of posture on the pulse. Dr. Thompson, in his work on inflammation, adverts to this subject, and

seems to have made a great many experiments to that effect.

VI.

WORCESTER INFIRMARY.

RAPIDLY FATAL STRANGULATED HERNIA.

Case. John Hall, æt. 35, a healthy-looking labourer, admitted at 6, a. m. Sept. 14th, 1830, with very large strangulated scrotal hernia, very tense, and somewhat discoloured at the lower part. The tumour and the abdomen were very tender to the touch—pulse 100—slight hiccup—no vomiting since the previous evening. He had had a rupture for some time but never worn a truss; it had descended at five, p. m. on the preceding evening, whilst heaving a heavy ladder. He was seen by a surgeon at 11 p. m. and the taxis tried for two hours without effect. He had had one evacuation since the descent of the rupture.

At 10, a. m. the operation was performed by Mr. Pierpoint, the pulse being 150, the countenance very pale. On cutting through the integuments they were found to be gangrenous, and an immense quantity of intestine, of very dark colour, was found in the sac. The stricture was relieved, but the intestines could not be returned, and an incision was made into their lower part to evacuate their contents, and $1\frac{1}{2}$ (qy. lb.) of grumous blood pressed out. The cut portion of intestine was secured by a ligature, and the integuments brought over it. There was much bloody fluid in the sac. The patient sank, and died at 2, p. m.

Section Cadaveris. The whole ileum was contained in the sac, and seemed as if tied by a ligature at the strictured part. The intestine was in a gangrenous state; four yards and two inches of it were contained in the sac. The peritoneum and intestine in the abdomen were highly inflamed.

Can we wonder at the rapidity with which

gangrene was induced in so large a mass of intestine, or, being induced, at the rapidity with which it proved fatal? In such a case the operation cannot be performed too early, the taxis cannot be employed too little.

GUNSHOT-WOUND OF THE SCALP.

Case. Samuel Crook, æt. 27. was admitted August 18th, 1830, with severe gunshot wound of the head, situated over the left orbital process of the frontal bone, an inch in breadth, and two in length; the eye a good deal swollen and inflamed; a portion of the integuments and pericranium was carried away. The accident had been occasioned by a gun having gone off when he was drawing its charge. Leeches and a poultice were applied to the wound, the sloughs came away, and healthy granulations succeeded. On the 10th day there was shivering, succeeded by heat and sweating, vomiting, tongue loaded, brown and dry, and pain in the head. Blood was taken freely "from the head," and the patient purged with calomel and jalap. The wound suppurated, the symptoms grew worse, there came on paralysis of the right side, blindness of the right eye, tremors. On the 15th day from the occurrence of the accident, the trephine was applied over the denuded bone, and two circular pieces taken out, when half an ounce of fetid pus escaped, and a portion of dura mater was found to be sloughy. Immediately after the operation he moved his right arm and seemed to breathe more freely. He gradually sank, however, and died at 11, p. m.

Setio Cadaveris. The whole of the left hemisphere of the brain was covered with pus, of which there was much also at the base, in the depression occupied by the middle lobe of the cerebrum; the pus extended down into the orbit, (which?) A portion of dura mater was sloughy, and adherent to the cerebrum to the extent of a shilling. The left hemisphere of the cerebrum was very much inflamed. No increased quantity of fluid in the ventricles.

We suppose from the context that the pus extended into the *left* orbit, but the case

is loosely worded. The blindness was of the *right* eye, and, if the matter was in the other orbit, depended on the pus at the basis of the brain on the opposite side. It is rather singular that the presence of the matter in the left orbit produced no symptoms nor disturbance of the functions of that eye. Of late years, since the treatment of injuries of the head has been better understood and more scientifically practised: since, in fact, depletion has been generally employed in the early stages, the instances of secondary formation of matter on or under the dura mater have been comparatively rare. The present case adds another to the long list of failures from the use of the trephine for these secondary symptoms. From what we have seen of its employment in these cases, we should say that the unexperienced readers of Mr. Pott's works, would form a very erroneous opinion of its success. We have never seen it beneficial, although we are aware that it occasionally is so. Prevention by strict antiphlogistic regimen and depletion is the grand point to be attended to.

VII.

CASES OF IDIOPATHIC GLOSSITIS. By MR. ORGILL.

CASES of this kind are certainly not common, and when they occur they deserve notice. Mr. Orgill has briefly published the particulars of three in our Glasgow contemporary for February of the present year.

Case 1. A farmer, aged 50, complained of much difficulty of deglutition, for which some common remedies were prescribed, and a week afterwards presented himself to Mr. Orgill. The left half of the tongue was so much swollen as to prevent articulation and deglutition; the right half was natural; the pulse was natural. Six ounces of blood were abstracted by leeches and a cupping-glass, applied to the root of the tongue externally, but this gave little relief, and Mr.

Orgill introduced a scalpel flat on the dorsum of the tongue, and made two incisions half an inch deep, from as far as the instrument reached to the tip. The incision bled pretty freely, and the swelling was a good deal reduced, but in the evening it was become as great as ever. It was scarified still more deeply, and a castor-oil enema prescribed. This also gave great relief for a season, but next morning the swelling had returned, with a peculiar lividity at the tip of the diseased half of the organ. An incision an inch deep was made with a scalpel, a gush of most offensive pus ensued, and in eight days the tongue was well. The sensibility on the affected side continued impaired for a year afterwards, but then it was gradually restored.

Case 2. A sailor, æt. 35, after languor and some rigor, complained of difficulty of deglutition, and next day the left half of the tongue was swollen to three times its natural bulk, and very painful. Its surface was foul, except at tip, which was very clean and red; the median line abruptly bounded the enlargement. There was much difficulty of articulation and deglutition, with fever. *V. S. ad 3xx.—brisk purgative.* Next day the tumefaction and pain seemed again to be on the increase. *Five leeches to the tongue—cathartic repeated.* The disease rapidly abated, and on the fourth day the organ was perfectly healthy.

Case 3. A woman applied to Mr. Orgill with inflammation of the whole tongue, terminating in suppuration of the right half. She was relieved by scarifications, discharge of the pus, and cathartics. Some months afterwards she was attacked with the same complaint, and there was here a peculiar lividity and smoothness at the tip, on the side which suppurated.

VIII.

FUNGUS HEMATODES OF THE THIGH,
SAID TO BE CURED BY AMPUTATION.

IN the same number of the Glasgow Journal is related a case of this description. A lad, about 23 years old, applied to Mr. M'Dowall in September 1829, with a soft swelling of the thigh from the knee to near the groin; it looked like deep-seated abscess, was punctured, but only a white fatty substance and a little blood escaped. The disease had commenced nine years previously in the form of abscess which had broken and discharged much matter. From the opening now made in the integuments, a large white fungous tumour appeared, and continued to advance. The opening being enlarged it soon attained a considerable bulk, looking like a large melon, and blood beginning to ooze from it, as if pressed from a sponge. The bleeding was troublesome, and the top began to mortify, so the tumour was removed down to the thigh-bone, and was found to penetrate deeply. The tumour, when cut into, looked soft and pulpy like brain. There was much loss of blood in the operation, and the patient grew rather collapsed. The wound appeared to be doing well, and so did the boy, but five fungous tumours soon began to appear through the wound. Every day they enlarged, and now a sharp point of bone was felt just over the head of the fibula, separate from the inside of the thigh-bone; it was removed, and another large fungous tumour, bleeding profusely, began to advance. The patient went on in a most miserable way, till the 10th December, when amputation of the thigh was performed, about four inches below the trochanter major. The health after this improved, and on the 10th April, 1830, Mr. M'Dowall met him on the road.

On examining the limb it was found that the piece of bone, measuring five inches in length, which was cut out near the head of the fibula, had been detached from the femur, and had left the cavity of that bone

open to the marrow. From this opening the fungus hæmatodes had proceeded. The whole of the muscles near the knee-joint were altered in texture, and the inner side of the femur was carious for some distance above the knee.

The operation was performed in December 1829, the young man was seen well in April 1830, and the case is dated December 1830. Now if it was really one of fungus hæmatodes, and it looks extremely like it, we contend that Mr. McDowall is hardly justified in pronouncing that amputation has effected a cure. It is notorious that patients do often recover after operations for scirrhus and fungus hæmatodes when their situation seemed utterly desperate. They recover for a time, but seldom does this deceptive benefit prove permanent. After a variable period, it may be months or even a few years, the disease returns in the situation of the wound, in the stump, or in some other organ, cuts off the patient, and gives the lie to the chronicler of cures. The profession in general are not sufficiently aware of this circumstance, and it is only the surgeons connected with large hospitals who have an opportunity of ascertaining the results of these operations. We must hold up our hands against the system of publishing such results as determined, before a sufficient length of time can have elapsed to fix the seal of truth upon the narrative. It is a system fraught with error and delusion, calculated to mislead those who have not extensive experience of their own, entailing on the world unnecessary, cruel, and fatal operations, and offering an obstacle of the most insuperable kind to the progress of medical science. We repeat that we hold up our hands against it, and shall visit with unsparing criticism whatever instances of this most serious fault may fall beneath our notice.

IX.

POISONING BY CANTHARIDES.*

A young woman serving in a dram shop administered some lytta in raspberry brandy to two young men, each of them taking half a pint of the liquor in question. One of them soon afterwards set out for Stourport, six miles distant, but was seized on the road with violent pain in the stomach and bowels, which compelled him to sit down frequently, insomuch that he was six hours in reaching the place in question. Mr. Williams of Bewdley was summoned, and found him suffering from violent pain in the stomach, bowels, kidneys, and bladder; a constant desire to make water; and a burning heat in the throat. Vomiting was produced by a mixture of sugar, water, and sweet oil, and afterwards he was ordered to drink freely of linseed tea.

At 4, a. m. next morning the skin was very hot, the sense of burning in the throat more urgent, the straining to make water incessant, whilst only a few drops of blood were voided, the pulse 100, the tongue thickly coated. *V. S. ad 3xij.—Enema, ol. ric. 3iss.* At noon the strangury continued, with much tenderness in the region of the kidneys, ureters, and bladder; bowels opened; pulse 100. *V. S. ad 3xiv.—Rep. ol. ric. et enemata. Linseed tea and barley water.* At 5, p. m. the tenderness was much increased; pulse 115; great restlessness, with occasional delirium. *V. S. ad 3xvj.—Ol. ric. et enemata.* 12, p. m. Restlessness very great; constant delirium with some slight convulsion; face much flushed and conjunctivæ injected; strangury distressing; pulse 125, hard and incompressible. He was bled to 3xxiv., kept in a state of syncope for nearly an hour, then allowed to lie down, and eight drops of laudanum in some linseed tea were given him. After this the urgent symptoms ceased, though the urine continued somewhat bloody, and

* Midland Reporter, No. XI.

the tongue peculiarly coated till the 6th or 7th of July. The patient was then convalescent.

We need not give the particulars of the other case, as the symptoms were similar to those of the last, and the same kind of treatment, though not so active, proved successful.

X.

INFLATION FOR COLIC.

Mr. JOHN KING, of Irvine, has promulgated a sovereign remedy for the colic in the last number of our contemporary of Glasgow. It is inflation or blowing up of the intestines, per anum. He conceives that it was a happy thought of those who hit upon this remedy in the hour of danger, after all their other efforts had proved nugatory. "It paralyses, as it were, the constricted fibres of the bowels, and may be used in the following cases, if not with complete success, at least with advantage, viz. the various kinds of colic, proceeding from torpidity, spasmodic constriction, viscid meconium in newborn infants, impaction, bezoards and other intestinal concretions, volvulus or intussusception, and some cases of *hernia*!" This is a very encouraging list, very encouraging indeed. Mr. King relates a case in which inflation proved successful, but we need not do more than allude to it. He secured the bladder of a glyster-bag to the nozzle of the bellows, introduced the pipe into the rectum, and puffed away with the best possible effects. Mr. King conjectures that inflation would have been beneficial in some other cases, but he gives the particulars of no more. He regrets that the remedy should have fallen into disuse; had it been a good one it probably would not have done so. We do not ourselves perceive the advantages of air over fluid as an injection, and many individuals with colic would rather let air out than take it in. We say nothing of the *spectacle* of a learned physician puffing up a person's anus with a pair of bellows.

The remedy may be one of great importance for any thing we know to the contrary.

XI.

CURIOUS TUMOUR ATTACHED TO THE PSOAS MUSCLE. By Mr. WALDRON, Bath.

ON Nov. 12th, 1829, Mr. W. visited Lieut. H. æt. 38. He complained of constant pain and uneasiness referred to the back, and tenderness on pressure of the third lumbar vertebra; the aspect was sallow, the bowels irregular. Leeches and purgatives were prescribed. On the 15th, Mr. W., finding the patient could only lie on the left side with the knees bent, examined the abdomen and found a fulness in the course of the sigmoid flexure of the colon. He considered the case one of fecal accumulations, and used means adapted to their removal, but without benefitting the symptoms. On the 17th the patient looked very ill, and Mr. W. again examined the abdomen, and thought he felt fluctuation in the fulness. The Lieut. said that he had suffered for several years from pain in the back and loins, that it had been growing worse for some months, and especially so within the last six or eight weeks. We need scarcely mention the treatment employed, as it did no good, and on the 24th Dr. Bowie met Mr. Waldron in consultation. On the 28th the consultants came to the conclusion that the case was one of psoas abscess, as the tumour dilated on coughing, and receded considerably when he lay upon his back. The patient sunk rapidly and died on the 30th.

Sectio Cadaveris. "On the left side a fulness was visible, extending from the anterior and superior crista of the ilium, to the inner edge of Poupart's ligament, and there terminating with a slight bulge. Upon manual examination after death, a very indistinct fluctuation could be felt. On making an angular incision from the symphysis of the pubis, extending to the right and left ilium, a quantity of serous fluid escaped;

on the left side, upon cutting through the parietes of the abdomen, and turning them back, the peritoneal covering of the left side was closely united, and could not be detached from a dark-coloured tumour which was now partially displayed to view. It appeared to occupy the greater part of the left side of the pelvis; from the close adhesions which had formed between this diseased mass, its peritoneal covering, the colon, rectum, and kidney of the left side, very considerable difficulty was experienced in its dissection, and by no means could it be satisfactorily effected. I first separated and secured by ligature, the large arch of the colon, above where the diseased structure commenced, in two places, and having then divided it, I proceeded to trace the sigmoid flexure downwards, but this I found impossible. The colon throughout, commencing from its sigmoid flexure, was embedded in an encysted tumour, of a dark colour, and when cut into and examined, evidently consisted of coagulated venous blood; the colon and rectum were so closely embedded in, and united to, this diseased mass, that they could not be separated from it; and *appendiculæ pinguinosæ* throughout the whole course of the colon, even to some distance above the tumour, extending to its large arch, resembled so many black grapes, and when cut into, were found filled with dark-coloured venous blood. These bodies were found so closely adhering to the tumour, that it was impossible to separate them from it. The tumour was situated on, and adhering to, the *psoas magnus* muscle, extending to, and enveloping the left kidney, and appearing to take the course of the mesentery, filling up the loose fold which retains the sigmoid flexure of the colon, and passing downwards as far as the mesentery extends towards the rectum. It would appear that the mesentery thickened and condensed by chronic inflammation, formed a capsule for the tumour. The colon and rectum, when cut into and laid open, appeared healthy within. The whole of the intestines were highly vascular, and bore marks of inflammatory action, but more especially the large ones. The liver was of

a light grey colour; the left kidney was very much diminished in size, and was surrounded by a yellowish substance, similar to pus. The spleen, was of a light grey colour. A very considerable quantity of fluid was found in the abdomen, which, during the attempts made at dissecting out the tumour, became mixed with the coagulated blood, and added greatly to the difficulty in making a clear and satisfactory display of the parts, and rendered it impossible to discover the source of hæmorrhage."

We have seen the same sort of bloody tumour surrounding one kidney. It was like the contents of an aneurismal sac, consisting of dark coagulum in some places, yellowish lamellated coagulum in others. It was of great size, yet the vessel from which the bleeding had occurred eluded our detection. Of the symptoms during life we are ignorant. We suppose that if the tumour, in Mr. Waldron's case, had been of the hæmatoid character he would have recognized it as such.

XII.

ABSORPTION OF THE IRIS.

A boy received a blow upon the eye with a piece of metal, lacerating the iris, and followed by considerable pain and inflammation. For a time the pupil was cordiform, being pointed at its lower part, but slowly, and without pain, the whole iris was absorbed, and the eye became amaurotic. Mr. Middlemore has several times observed laceration of the iris followed by partial, in one instance by its total absorption. In every case the injured eye became amaurotic.—*Mid. Report.* No. XI.

XIII.

GROWTH FROM THE CILIARY LIGAMENT.

A CHILD, æt. 10, was struck upon the eye

with the closed hand, without occasioning any evident inflammation afterwards. In about a week a small reddish tumour formed in the anterior chamber at the anterior side of the eye, appearing to be attached only to the ciliary ligament. It soon became as large as half a small pea, was convex anteriorly, extended nearly across the pupil, the circularity of which remained, occasioned no pain nor inflammation, and neither impeded the motions of the iris, nor changed its colour. Under the influence of mercury, the tumour gradually became absorbed, and never again returned. Did the tumour consist of organized lymph?—*Ibid.*

XIV.

CONGENITAL MALFORMATION OF THE CORNEA AND SCLEROTICA.

A SERVANT, æt. 22, has a small excrescence on the left eye, arising from the cornea and sclerotica, at its temporal side; its surface white, smooth, convex; in its centre a small depression from which strong black hairs arise, which incline downwards so as to hang over the lower lid; it is firm to the touch, and appears to be covered by the sclerotic conjunctiva; the surrounding cornea and sclerotica preserve their natural structure. He says that the blemish was congenital, and that the hairs began to plague him only a few years ago. The man usually calls on Mr. Middlemore once in every six weeks, in order to have the hairs removed. Mr. M. intends to apply the nitrate of silver to the cavities containing the bulbs of the largest hairs, when he next extracts them, and if this fails to dissect them out, if it can be done without danger of penetrating the globe. The hairs are of the same colour, and have the same inclination as those of the lower eyelid. This is the only instance of such a congenital malformation which Mr. Middlemore has witnessed.

In a patient with hernia we remarked a deficiency of the circle of the iris at its in-

ferior part. The pupil was of course oblong from above downwards; vision was very imperfect with that eye. The same individual had all the appearances of the blue disease, though not in an aggravated degree, so that there seemed to be a tendency to imperfection in her formation, a circumstance not uncommon.—*Ibid.*

XV.

EXCISION OF SCIRRHOUS RECTUM.

Our readers are well aware that M. Lisfranc is in the habit of excising the lower extremity of the rectum for what is called in France cancer of that gut. Our readers are probably aware also, that the term in question is not restricted in that country to the same malignant class of disease, to which it is limited by us; and consequently that in many cases the operation is performed for affections not essentially malignant. This being premised, we may mention some circumstances respecting excision of the rectum, which are not undeserving of attention.

The peritoneum descends along the front of the rectum to six inches from its extremity in woman, to four inches from the same in man. By means of an ovoid incision in the skin around the anus, the rectum can readily be drawn out behind, and any kind of instrument may be applied to it; there exists a second sphincter above the first. M. Lisfranc has removed as much as three inches and a half of the rectum, and he recommends the operation whenever the fore-finger can reach beyond the upper margin of the disease, and when the cellular texture external to the gut is sound. The operator must bear in mind that the antero-posterior diameter of the perineum is generally one inch, the distance of the anus from the coccyx eighteen lines, and that between the anus and the base of the same bone two inches; that considerable portions of the rectum may be removed laterally and posteriorly without wounding the vagina in woman or the urethra in man; and finally

that hæmorrhage may always be arrested by pressure or by ligatures. In the performance of the operation the patient is to be placed as in the lateral operation for lithotomy—two semilunar incisions are to be made around the anus—and the rectum to be insulated in its inferior extremity, drawn down by the fore-finger introduced into its cavity, and cut off by means of scissors. After the cure, the feces are sometimes voided in the usual manner, sometimes a *bouvrelet* is formed internally and takes the place of the sphincter, sometimes there is incontinence of liquid feces, and sometimes the patient is obliged to stuff the rectum with lint. Out of nine cases of operation related by M. Lisfranc, six ended favourably, three fatally.

XVI.

COMPOUND DISLOCATION OF THE OS NAVICULARE OF THE TARSUS.

Mr. BRODIE in his lectures is accustomed to mention a case of dislocation of the os naviculare, which started upwards. The patient was afterwards subject to periodic pains in the course of the nerves. We are not aware that such a dislocation is mentioned by other surgeons, though no doubt it has occasionally occurred. The following case is not undeserving of notice.

A carman, ætat. 28, had his foot jammed between the curb-stone and a coach-wheel, occasioning a wound which bled freely. He was carried to a hospital in Paris. The wound extended from the tendo-achillis, below the ankle, to opposite the middle of the metatarsal bone of the great toe, whilst another wound commenced before and above the ankle, and passing forwards to join the former at an acute angle, formed along with it a flap. The wound was not deep, but a little anterior to its centre a bone projected presenting an articulating surface. There was a considerable depression on the outside of the foot, below the external malleolus;

the lower part of the leg and the foot were much swollen. It was thought that there was dislocation of the astragalus, and some very forcible, indeed violent, efforts were made to reduce the bone thus supposed to be displaced, but in vain, and at length they were abandoned, and the foot enveloped in a poultice. Next morning the swelling was greater and had spread higher, and the skin in the neighbourhood of the wound threatened gangrene; the patient refused amputation. The appearances grew worse during the day, and in the evening a phlyctena existed on the posterior part of the leg. Amputation was now performed, but the patient died eight days afterwards with symptoms of pleuro-pneumonia, which dissection proved to exist. It was now discovered that the astragalus was perfectly in place, and that the depression below the external malleolus was merely a result of the swelling elsewhere. The os naviculare had been dislocated from the astragalus and cuneiform bones inwards; its external extremity, connected with the cuboid, had been fractured from behind forwards, and a small portion still remained attached by ligamentous fibres to the cuboid bone. We certainly cannot say much either for the diagnosis or the practice in this case.—*Hédomadaire*, T. II. No. 19.

XVII.

VESICO-VAGINAL FISTULA SUCCESSFULLY TREATED BY THE SUTURE.

MARIE REGGIANI, æt. 22, had laboured under a vesico-vaginal fistula since her first confinement, which had been protracted and severe; the finger could be readily passed through the fistula into the bladder. For eight months a great variety of plans were employed without success, and she repaired to M. Malagodi at Bologna, who performed the operation we are about to describe. Having placed the patient in the lithotomy-position, he introduced the fore-finger of the right hand, covered with the

finger of a glove, into the fistulous opening, and bending it drew down the left border of the fistula to the orifice of the vagina; and then, with the other hand he pared off the border with a straight bistoury. The hand was changed, and the same operation repeated on the right border of the fistula. The object was now to bring the two pared edges in contact. M. Malagodi had armed each end of these ligatures with a very small curved needle, and there was a handle to which the needles might be fixed at pleasure. He then re-introduced the right index-finger into the opening, and brought down its left border, and with the left hand passed a needle through it near the posterior angle of the wound. A second and third needle were passed in the same manner at equal distances from each other, and their opposite border was transfixed in the same manner, when the ligatures were tied, and the sides of the opening brought together. The patient was placed on her back in bed, a catheter kept in the bladder, and the urine allowed to flow constantly into a porringer. Until the morning of the third day the water was passed through the catheter only, but then it began to escape by the wound into the vagina. On the fourth day an examination was made by M. Malagodi, who found that the two posterior sutures remained firm, and on withdrawing them the union of the sides of the fistula was complete. The anterior ligature, on the other hand, had torn the left border of the wound, and nearly a third of the original fistula thus remained unhealed. To effect the contraction and perfect cicatrization of this, M. Malagodi touched the edges regularly with the nitrate of silver, leaving the catheter constantly in the bladder. The plan was persisted in for some weeks, and was crowned with perfect success.—*Raccoglitore Medico*, July 1829.

XVIII.

DISTINCTION WITHOUT SEPARATION. A LETTER TO THE PRESIDENT OF THE COLLEGE OF SURGEONS ON THE PRESENT STATE OF THE PROFESSION. By JOSEPH HENRY GREEN, F.R.S. &c. &c. Octavo, pp. 48. Sewed. May, 1831.

THOSE who are acquainted with Mr. Green—or who have heard his eloquent, scientific, and philosophic lectures at the College of Surgeons, will naturally be anxious to know the opinions of such a man on the present distracted state of the profession in this country. This, at least, was the case with ourselves, and therefore the instant we received the pamphlet, we read it through attentively. Mr. Green may be considered as a LIBERAL REFORMER—but we fear his BILL will be considered *revolutionary* by the ultra-aristocracy of the profession; while it will appear not quite adequate to the wants or wishes of the democracy! Mr. Green is a profound reasoner, and his lucubrations are entitled to respectful consideration. His proposed plan of reform would, we think, be a decided improvement on the present system; and would very probably lead to improvements of a still higher character. As a distinguished ornament of that College whose cause he advocates, his proposals can hardly fail to make a strong impression on the existing rulers of the institution, though we can hardly hope that they will be disposed to adopt his suggestions to the full extent. But we shall now endeavour to lay a full account of this pamphlet before our readers.

With the following philosophic reflection the little work is opened.

“Professions, like States, seem destined to have their phases and mutations. They struggle from ignorance into light, rise through error and prejudice to their full meridian glory, decline then in the subdued splendour of forms that have no longer the inward life that produced them, and sink at last into the darkness of formulæ, dicta, and precedents, the *caput mortuum* of a creative intelligence. If we look to the professions

of Divinity and Law, (to the Sciences I mean, as distinct from the professors,) I fear it cannot but be confessed that these sister stems, which entwining with Medicine, form the great trunk of the mind of the State, have ceased, in a great measure, to push forth their leaves and blossoms, and shew at present so few signs of life and living energy, that it might be doubted whether the sap continues to arise from the common root. Without attempting to disparage the useful labours of theologians and lawyers, for we are now speaking of the *Sciences* only of Theology and Law, not of the *men*—in the *literature* of these professions, we shall, I fear, look in vain for those marks of vigour which characterize the works of our elder divines and lawyers of that golden age of our national intellect, comprised in the reigns of Elizabeth, her immediate successors, and the Commonwealth: their teaching, preaching, writings, and works, were not the records of precedents, the amassment of mere facts, but breathe an intellectual life into all the knowledge of the age, into all its feelings, hopes and aspirations, and address themselves to the whole heart and mind of man.”

Mr. Green then passes a well-merited eulogium on the medical profession for its scientific and literary attainments, its humanity, and the respectability as well as influence of its members throughout every ramification of society—through every region of the globe. But the eloquent author aptly observes that, if the medical profession is justified in claiming this rank, “it is bound to shew its credentials, and prove that its members have the desire and disposition, as far as their circumstances permit, of fulfilling and realizing the idea that animates or ought to animate their pursuits.” This leads Mr. Green to a rapid retrospective glance at the origin of our medical institutions in this country—a retrospection, by the way, not over flattering to the beautiful character of the profession which the author had just drawn.

“If we look back into the annals of the

medical profession in this country, we shall find in the charters granted to the College of Physicians, and to the Barber Surgeons, that the first attempt to its more effectual incorporation was not unpromising, and began with no inauspicious omen of future greatness. But it is no less true, that unfortunately at that time likewise were the Cadmean teeth sown, *mortalia semina dentes*, which were afterwards to start up in the armed forms of jealousy, rivalry, dissension, and separation, between the two important branches of physic and surgery. This might indeed have been prevented, had the College of Physicians acted up to their original charter; and had they continued to enforce its provisions, the right and duty of practising surgery being vested in them, the present College of Surgeons, or its humbler predecessor, the Corporation of Surgeons, would not probably have existed. And although it cannot be doubted that, sooner or later, the functions of the surgeon and physician, (at least in all large towns,) would have been exercised by different individuals, yet the well-educated surgeon would have been essentially a physician, fitted to be such by his education, and by virtue of his attainments admitted as a member or fellow of the College of Physicians; and the difference in the two classes of physicians and surgeons would have been only *practical*, whilst the absurdity of a division, where it is impossible to draw a boundary line, would have been obviated: there would have been, I say, *distinction without separation*. There would then have been a scheme laid of ordered unity, for which the elements must have their rank assigned by a principle of co- and sub-ordination, in default of which the elements become hostile opponents. But, unfortunately, whatever the cause may have been, instead of this distinction, which not only permitted, but might have secured and perfected, a union, the College of Physicians resorted to an exclusive division from the surgeons; and we find them taking no other interest in the proceedings of the latter, than by instituting law-processes against them, or the more summary mode of vindicating their supposed

rights, by committing them to Newgate. And thus the circumstance of the distinction of function with a common object, instead of acting to fraternize and cement, became the deadly poison of jealousy and hatred."

But the surgeons, though disgraced by their fraternization with the Barbers, began gradually to rise into importance, and ultimately effected a separation from their ignoble brethren of the razor, and the establishment of a corporation for themselves. Here we have to deplore a division which weakened the profession, and seemed to erect an impassable boundary between the two great classes of medical practitioners. But this was not all. A third division or sect was soon to be created more numerous and perhaps more powerful than both the other two—the GENERAL PRACTITIONER. Originally only the dispensers of the physician's prescriptions, they were afterwards entrusted to administer—and ultimately to prescribe medicines. Native talent and the diffusion of knowledge have now rendered this class physicians in ordinary to the community at large.

"Their surgical functions brought them of course into connexion with the surgeons, as the surgeons in many instances arose, from very obvious causes, out of the class of general practitioners. But although thus every way connected in interest, and united in a common object with the higher branches of the profession, we find, as the advance of knowledge required a closer examination into the qualifications of the general practitioner, that in an inauspicious moment, the regulation of this department of the profession was entrusted, by Act of Parliament, to the trading company of Apothecaries, and thus a new and independent interest created in the profession. And although the society of apothecaries have, with exemplary zeal, directed their efforts to promote the better education and respectability of their members; yet it would be difficult to assign any sufficient reason for their selection to so important a trust; and we have to regret that it presents another instance of separation, where distinction without divis-

ion might have been easy, and has become, like the separation of surgery from physic, another cause of disunion and weakness in the medical profession.

Thus, throughout the medical profession, in which there is essentially a community of interests and objects, instead of promoting and cementing a union of its different departments, which would have given strength to the higher, and an increase of respectability to the subordinate, their interests have been rendered independent, and conflicting, to the great danger of its stability, and with the obvious tendency of crippling its energies and of lessening its sphere of utility."

This is a melancholy, but true picture; and the learned author despairs of a remedy—"the separation of the different departments of the profession being a thing *jam consummatum*, and, for the present at least, irremediable."

Mr. Green then proceeds to investigate the origin, the intentions, and the conduct of the College of Surgeons—expressing an earnest and honest desire "to discover the foundation (if any) for those bitter complaints, and loudly-trumpetted-forth grievances, which, full of sound and fury, threaten to shake to its foundations the College of Surgeons." Mr. Green proceeds to a very recondite, and to us not always intelligible discussion into the nature of colleges, societies, or institutes, for the protection or promotion of science or the fine arts, as distinguished from corporations, guilds, and companies for the regulation of commerce, or the maintenance of rights and privileges. In the latter class of institutions our author argues that it is right and proper that a certain number out of the whole class should be elected to watch over the common interests of all, in which process, the electors can find easy and sufficient criteria in the wealth, extensive dealing, and fair character of the candidate or nominee. From the following extract, it will be seen that Mr. Green takes a very different view of scientific corporations.

Now, if, on the other hand, we look into the history of the different great learned or

scientific colleges, academies, and institutes of civilized Europe; or if we consider the ends and purposes of their institution; we shall find that the paramount object has been to create a class not already existing, or to call forth a class existing only under the scum of such imperfections and deformations as necessarily intercepted every form of excellence that might be contained virtually therein. The purpose, I repeat, of the illustrious founders, has been to take advantage of the fortunate accidents of genius, knowledge, and attainments, which the particular age and country had presented, and so to combine these, as that they should work productively as well as influentially on the mass successively subjected to their influence, so as, in the greatest possible degree, to assimilate it to themselves. They were the ferment that was to work in the production of a given body, and not merely to be choice specimens of products already existing. The colleges of learning and science may exercise various functions, and fulfil sundry purposes, which belong to the corporations of common life; but this is their peculiar character, this is that by which they have and can alone worthily retain the name of a learned or liberal incorporation—that their characteristic object is prospective, the promotion, the advancement of the science or art, in distinction from, though, thank God, in necessary union with, the interests of scientific men, as individuals. Their characteristic mode of action is to work by descent; they are to be the suns of the system to which they belong, and not mere mirrors, reflecting only the light that had been previously bestowed; and their characteristic form, from the very beginning, is by *appointment*—appointment by a higher, in contradistinction from *election* by a supposed lower or equal.”

“Appointed thus from the highest authority, and ‘exercising an influence, which evermore works *descensively* till, as the product of its own subliming and assimilative action, a correspondent ascension gradually takes place, a college thus framed perfects itself into a circle, ever working *from above*,

yet ever returning on itself.’” These are sublime images of beau-idealism in surgery, which we love to dwell on; but unfortunately we cannot shut our eyes to the realities of life around us! When we contemplate these “suns of the system to which they belong,” radiating their beams of knowledge on the innumerable distant orbs of the same system in Lincoln’s-Inn-fields—when we see these distant orbs “ever working from above”—and so prone to amalgamate with the “suns” of the system, that it requires talismanic wands to keep them from rushing into terrific collision—we cannot but think that the ingenious author of the brochure before us, has drawn a little upon his own fertile imagination—and portrayed that which *ought* to be, rather than that which *is*.

The able writer goes on to state that the great purpose or object of a learned body is to confer honour, to delegate authority—to give assurance to the community of competent skill—to exclude from the ranks of the profession every unworthy member. That these praise-worthy objects are all accomplished by the College of Surgeons, seems to be doubted, even by the College’s own professed advocate.

“How far the college has answered the purposes for which it was intended? whether it has produced all the advantages that might have been expected? or again, whether any improvements might be suggested for its more efficient administration?—these are questions which are now to occupy us, and the answers to which are to form the results of our inquiry. That it has done much good, I cannot doubt, in producing a better educated and more efficient body of surgeons, in rendering them more anxious for professional character, and in raising them in the public estimation. But whilst the college possesses no power of preventing ignorant and unqualified persons from practising surgery; whilst men of bad character are permitted to enjoy the privilege of being associated with men of honour and respectability; and whilst advertising quacks are suffered to stand on

the list of its members, it may be doubted whether its influence is such as might be wished; nor am I prepared to say, that the examination of candidates for admission, and the lectures illustrative of the museum, in point of extent, are such as may be deemed worthy of the advanced state of science."

Mr. Green denies that these defects in the institution were the causes of dissatisfaction upon recent occasions—and he maintains that the said dissatisfaction is limited to a small fraction, or faction of the members at large.

"On the contrary, it is notorious that the loud and the turbulent, as in most cases, form but a small, and that the least respectable part of our community; and that not only has there been no complaint nor remonstrance by any number, however small, of respectable members, in respect of any mal-practice or mal-administration of the college, but it is evident from the still swelling list of members, that the candidates for general practice are anxious to obtain the college diploma, and consider it an honour and a proof of their respectability to belong to the college. *I will not, however, attempt to conceal that discontent and dissatisfaction exist, and that many of the members of the college who have not given a public expression of their feelings, perhaps from fear of being identified with persons whose motives and objects they disapprove, still sufficiently show that they are by no means cordial friends of the establishment, and evince, in various ways, their dislike and jealousy of college influence.* I believe it will be difficult to discover the nature, and trace the causes of this more or less prevalent feeling. The general practitioners feel themselves,—in consequence of their ineligibility to places of influence, and from having no voice in the affairs of the college,—under a perpetual ban of humiliating disparity, in comparison with those who practice surgery exclusively; and I apprehend that the discontented generally would, (if they could divest themselves of the sense of propriety, the absence of which characterizes the turbulent few,) *adopt the same language as the latter have done, and demand*

for themselves eligibility to the council, the power of electing members to the same, and the control of the application of the funds."

The author would gladly believe that this feeling is *not* general among the surgeon-apothecaries, since he could not ascribe it to any desire of increasing the respectability of the profession, which ought to be the aim of its members. He therefore attributes this feeling to a "spirit of restless ambition, and the delusive lust of individual power." The sum and substance (he maintains) of the defects complained of in the present constitution of the college, are the irresponsibility of the council—its powers of self-election—and "the exclusion of the surgeon-apothecaries from all control of the funds, and from places of trust, as well as from the elective franchise." In respect to the *irresponsibility* of the council, the author meets the objection by asking if the council have abused their trust, or rather their absolute power? We are rather surprised to see so sensible a writer as Mr. Green make use of so weak an argument. Is unlimited power to be confided to a monarch because he has never abused power or acted the tyrant? History surely has not been consulted in vain by Mr. Green. After vindicating the conduct of the council (and we are far from accusing them of any misconduct) the author appears to feel the weakness of the argument, and endeavours to shew, by a somewhat subtle and forensic train of reasoning, that the council is *not* irresponsible. The author shall speak for himself.

"But is the council, according to the previous assumption, really irresponsible?—So far from it that, according to the laws of England, the KING, who is the founder of all corporations, is constituted by law the visiter of the same, and he exercises this jurisdiction in the Court of King's Bench, where all misbehaviours of corporations are inquired into and redressed, and which, upon a proper complaint and application, can prevent and punish any injustice of which they may be found guilty. Thus, then, for the due administration of the affairs of the surgical profession, there do not appear to be

any sufficient grounds for removing it from the hands in which it is placed."

That our Patriot King is ever ready to attend to and redress the grievances of his subjects, we well know ; but that His Majesty should take upon himself, through the medium of his "Court of King's Bench," to rectify the grievances of the members of the College of Surgeons, is rather too much for common sense ! This indeed is the weakest part of the pamphlet, and much are we astonished that Mr. Green should so openly expose the weakness of his cause. Mr. Green's arguments against *universal suffrage* in the election of the council and other offices in the college, are better supported ; and as this is one of the most important of all the questions discussed, we shall again allow the author to speak in propria persona.

"And I proceed, then, to the remaining question, that of the power of nomination and appointment, vested in the council, and the consequent exclusion of surgeon-apothecaries from eligibility thereto, and from any elective franchise. And although this question might be fairly dismissed, by referring to the distinction already established between scientific institutions and trading corporations, in drawing which it has been shewn, that the former can be in no other way renewed and perpetuated than by taking up, receiving, and appointing those, whose qualifications and attainments fit them to carry on the original purpose of the institution, and that the very objects and intentions of such learned bodies would be frustrated by popular elections ; yet if, admitting even the principle of election, we can shew that the admission of surgeon-apothecaries to the same privileges as those members of the College who practice surgery exclusively, would be neither just nor desirable, nor even practicable ; and that this must be granted by any reasonable man, or even by any general practitioner not wholly blinded by his passions,—then I presume it will be admitted, that the question respecting such a change in the constitution of the College, may be suffered to

fall to the ground. Now it is plain, and so acknowledged by the public, that the surgeon apothecary derives a large share of his respectability and of his general professional character, and receives the confidence of his patients in consequence of his being associated with, and having received the diploma of the college ; and that it not only is so, but that the general practitioner feels it himself, and is proportionally anxious to make it known that his qualifications for practising surgery have been examined into and approved by the college. It would be wonderful if it were otherwise, for the testimonial of his ability is guaranteed by the signatures of those whose names are well known to the public, as men whose knowledge and judgment are the best warrants and authorities for the truth of the certificate. Substitute for the names of men eminent in character those who, however much and deservedly prized within a narrow circle, are not known to the public at large, and the diploma will become little better than waste paper, or at any rate comparatively insignificant and worthless. And surely if the end aimed at in the selection of the council be that of exalting the dignity of the profession, the end will be best attained by selecting and raising those who are most distinguished and eminent as surgeons ; whereas by putting on an equality those who practice surgery exclusively, and those who make surgery a subsidiary qualification, and making the latter eligible to all plans (places) of honour and trust, the object of the institution of the college, which is that of promoting the science of surgery, and not the interests of the practitioners, will be defeated, and the college would in all probability dwindle into a trading corporation : *not to mention that I fear that, as the general practitioners are in an overwhelming proportion to the surgeons, it might not improbably happen, that the latter would be excluded altogether.* And I believe we may state it as a general truth, that by a system of equalization, the higher being brought to a level with the lower, this process of levelling would infallibly vulgarize the profession ; whilst on the other

hand, the more you honour that which is distinguished, the more that which is lower will be raised, partake of the honour, and derive an increase of its estimation with the public.

"I trust, however, that my meaning will not be misunderstood, as if I meant to undervalue the attainments and talents of general practitioners, since I am only speaking of their share in the profession of surgery as being necessarily lower, because forming really a subordinate part of their practice, in comparison with those who practice surgery exclusively. I cheerfully admit that the general practitioners number amongst them men most estimable in talent and character, yet they themselves will allow that the avocations and pursuits of the great body of their members, do not exactly fit them for the guardians of professional honour, and the promoters of science; and without wishing even to insinuate that those who devote themselves exclusively to surgery, are men of more integrity or more talent, yet I cannot but believe, that their habits as teachers, as surgeons of hospitals, their residence in London, and intercourse with those most influential in rank and talent, render it more likely that they should take enlarged views; that they should pursue professional studies with a view to the cultivation of science, and thus liberalising the profession, free it from the petty interests of a trade; that they should be awake to the wants of the profession, and supply them without jealousy or partiality; in short, that both their habits and their local advantages best fit them for constituting the governing council of the surgical department of the profession. It does appear, therefore, that it is not without justice, nor without consulting their own best interests, as professional men, that surgeon-apothecaries are, in the *present* state of the profession, excluded from forming a part of the executive administration of the affairs of the college."

But admitting that the GENERAL PRACTITIONERS should be considered ineligible for admission into the council, it may still

be argued that they ought not to have a voice in the election of the pure surgeons to that high office. Allowing this elective franchise to be conferred on the members at large, Mr. Green asks who are those who would virtually exercise it? He answers—"the LONDON PRACTITIONERS, since it is impossible that the country practitioners, the surgeons of the army and navy, or those resident in our colonies, could attend the election." He contends then that the elective franchise, designed to give influence to the majority, would, in fact, "give power to the few at the expense of the many." There is certainly considerable force in this objection to universal suffrage in surgery.

"But in thus adverting to the practitioners in the country, I cannot pass over the fact, that there is a very important distinction to be made between many, or most of these, and the London practitioners. In the country, necessarily, a great deal more of surgical practice devolves upon the general practitioner than in London; and many being surgeons of county hospitals and infirmaries, and residing in large towns, like Manchester, Leeds, Birmingham, Liverpool, (names which bring to my recollection men most eminent in practice, and sedulous cultivators of their profession as a science,) there would be found amongst them most desirable acquisitions, and men who would form bright ornaments to the college council: were it not obvious, that to the availing ourselves of their services, their residence in London is an indispensable condition. On the other hand, the London general practitioners, seldom called on in pure surgical cases, or acting only in a subordinate capacity, are therefore, of the whole body, those least fitted to direct and control the interests of surgical practice and science."

But Mr. Green is not so Utopian as to expect that the above and many other arguments against popular elections and universal suffrage, will give any thing like general satisfaction to "those who desire a larger share of influence and power;"—and so far he would be disposed to go with them—"not-perhaps in agreeing with them as to

the remedy, but in deploring as an evil, in the present constitution of the College, the *want of sympathy* or communion between the members at large, and the governing body." This is, unquestionably, an evil of tremendous magnitude ; for it will constantly bring, not only into public discussions, but into private life, *unceasing* enmity and hostility subversive of the respectability of the profession ! Under these impressions the talented advocate of the College holds it to be a legitimate object of inquiry whether there are "any means of producing a greater confidence in the College, a closer union of its members, and a probable extension of its influence and benefits ?" Mr. Green thinks it may perhaps be possible so to modify the charter, as to "satisfy the excluded, and thereby strengthen the College, without interfering with the principle of its foundation." We are now prepared for the plan proposed by Mr. Green.

"1. That the government of the College should be vested in a *President*, a *Supreme Council*, and a *General Council*.

2. That the Supreme Council should consist of the President and twenty members, who should have the entire management of the affairs of the College, and the conducting of examinations.

3. That the members of the Supreme Council should appoint its own members from the General Council, and consist only of those who do not practise midwifery, nor dispense medicines.

4. That the General Council should consist of the members of the Supreme Council, and of forty additional members, twenty of whom should be under the obligation not to practise midwifery nor dispense medicines, and the remaining twenty of general practitioners—making the total number of the General Council *sixty-one*.

5. That the General Council should appoint its own members.

6. That the General Council should choose auditors of the accounts, and might suggest to the Supreme Council at their meetings any measures for the benefit of

the profession. And further, that all public acts of the Supreme Council should be communicated to them.

7. That the eligibility of that class of members of the General Council, under the obligation of not practising midwifery, nor dispensing medicines, should be further determined by proofs of a longer course of study, and of superior capability, evinced by severer examinations. 1. On entering the profession, they should produce certificates at the College of having been instructed and undergone examinations in *Latin*, *Greek*, *Mathematics*, and *Logic*. 2. That they should have devoted at least *five years* to the study of their profession, and produce certificates of having attended lectures on anatomy, physiology, chemistry, materia medica, botany, practise of medicine, medical jurisprudence, comparative anatomy, midwifery, and that during that time they have attended a public hospital. 3. That they undergo three distinct examinations ; the first on anatomy and physiology, the second on pathology and therapeutics, and the third on surgery ; and that they write a *thesis* on a given subject, in a closed chamber, without the aid of books.

8. That there should be a class of Honorary Members of the General Council, men of distinguished merit in provincial towns, the army, navy, or colonies.

9. That general practitioners who have given up the practice of midwifery and the dispensing of medicines, should be eligible to the first class of the General Council.

10. That teachers of anatomy and surgery should not only have undergone the examinations of the first class, but should have given *public proofs* of their capability to teach by delivering a lecture, the preparation for which should not occupy more than twenty minutes.

11. That effectual means should be taken of enforcing the duties of masters to their apprentices or articulated students, by a prescribed and definite course of instruction.

12. In the provisions of a new Charter, it should be imperative that no one

should be allowed to practice surgery who was not a member of the College. Since, without this check upon ignorance and empiricism, it is impossible that the College can exercise one of its most important functions—that of protecting the public from the arts and practices of dishonest, unskilful, and incompetent pretenders.

13. And lastly, that the Charter should distinctly define, express, and declare, the power of expelling all those who, by dishonourable practices, have rendered themselves unworthy the character of members of a liberal profession, whether it be by the use of secret remedies by advertising, by partnerships in trading concerns, by calumnious reports of their professional brethren, breaches of professional confidence, or whatever else may be considered derogatory to a professional character."

We think that no unbiassed member of the medical profession can read the foregoing proposal, without conscientiously admitting that it would be a measure of incalculable benefit to the surgical profession, as compared with the present system. Much as we are disposed to raise our voice against all arbitrary power, we nevertheless most heartily approve of the concluding, or 13th article—viewing it as a kind of court of honour for punishing those numberless dishonourable and disreputable practices which could not possibly come under the cognizance of a court of law. Let us just apply the jurisdiction of such a court (which should, of course, embrace the whole 61 members) to the present moment. If the College of Physicians possessed the power, or had the inclination to exercise such a wholesome control over its members, would the vile epistle in favour of St. John Long, and vituperative of all that is respectable in the profession, ever have emanated from Ely Place? Long experience and no inconsiderable communication with all ranks of the profession, have impressed us deeply with the necessity for some COURT OF HONOUR, of the above description. We are firmly convinced that it would be of more utility than all the proposals contained in the twelve preceding

articles of reform put together. But the best part of the whole pamphlet is yet to be presented to our readers.

"In addition, however, to all this, I would have the college, with a bolder zeal, promote science from its ample resources, especially by extended courses of lectures on anatomy, physiology, and pathology; on comparative anatomy, and on surgery—lectures which might do justice to Mr. Hunter's museum, and prove worthy of the college, and of the present advanced state of science.

"Nor should I think the plan complete without the publication of *transactions*: and I would suggest that these should not only consist of voluntary contributions, but that each member of the general council should, on his admission, be obliged to furnish a paper; that they should moreover contain digested *reports* from the hospitals, both in town and in the country; and that a foreign secretary should be appointed who might correspond with the hospitals and scientific institutions for the promotion of surgery on the continent, and in America, and maintain a communication with medical men throughout the globe.

"If the college shall do all this, I think it cannot fail in healing all differences with its members, or if it have opponents, in shaming them into silence; and in raising itself in the public estimation, it will deserve the gratitude of the public and of the profession. And I do not doubt that as, in order to carry these beneficent objects into effect, a modification of the charter would be necessary, that all the respectable members, in other words, the majority and great body of the profession, would cheerfully join with the college in *petitioning* for this enlarged charter, which would secure the interests of science, the progressive improvement of the profession, and hope for all candidates for its privileges and honours.

"But if such a petition were presented to me as a minister of state, appointed to consider the provisions of such a charter, I should pause before I granted it. For I should be led to reflect on the state of the

whole medical profession, and considering its vital importance to the state, its objects and purposes, I should come to the conclusion, that however desirable it may be for its practical administration, that its departments should be distinguished, yet that from the unity of its character and purposes, they could not be divided. Instead, therefore, of any partial alteration or regulation, I should advise that **ONE** faculty of medicine be constituted, with such powers and administrative regulations as would render it efficient in promoting the science, and controlling the practice of medicine in all its branches, as a great interest of the state. Of this faculty, the colleges of physicians and surgeons, as representing the great leading distinctions of the profession, would naturally form the co-ordinates. In order to the admission of candidates to either, it might be required that they should have passed through the same course of study, which should be upon the most extended plan of a liberal and professional education, and that the examinations for ascertaining their proficiency, should be conducted by both; and that then from the candidate expressing his wish to enrol himself in either, as intending to devote himself practically to one or other branch pre-eminently, whether medicine or surgery, such additional proofs of competency might be required, as might shew that he was entitled to the desired privilege. And thus the practical distinction between medicine and surgery would be acknowledged, whilst their scientific unity would be preserved.

"Out of both would then naturally arise a third department, partaking of the character of each,—that of midwifery. This might have its separate board or institute, and the candidates for admission having the same basis of general education, would follow a similar rule for the enrolment of its members, by requiring a special skill and knowledge in this department of the profession.

"Next, as conjoining the functions of all three, the class of general practitioners would find its place: their institute forming

a department of the faculty, which would in like manner regulate the admission of candidates, their education and qualifications, and watch over the affairs of their particular branch of the profession.

"Lastly, from the colleges or institutes of medicine, surgery, midwifery, and general practice, might be formed a medical convocation, for the purpose of deliberating on all matters relating to the profession at large. And thus a body would be constituted in the service of the state, with whom the government might consult, and to whom the country would look for advice and assistance in all matters appertaining to the health of the community, and to whom all questions relating to epidemics, laws of quarantine, the health of the army and navy, the building of hospitals and prisons, punishments, drainage, sewers, nuisances,—in fine, **all questions** of medical jurisprudence and police might be referred. And to a faculty of medicine so constituted, might be entrusted the government and supervision of the practical departments of the profession, and that not only should none practice medicine, surgery, or midwifery, without their sanction, but that all keepers of houses of reception for lunatics, all druggists and chemists, dentists, cuppers, should be obliged to have their license for their several callings. And if the government would render the benefit complete and national, they would root up the detestable upas-tree of quack and patent medicines. And thus, Sir, we might at length see a profession flourishing in this country, the motto of which would be **DISTINCTION without SEPARATION.**"

It will be evident that this plan does not differ very essentially from that which has been recently proposed by other medical reformers, under the title of "**THE LONDON COLLEGE OF MEDICINE.**" As being much more likely to succeed, if consented to, and assisted by the "**POWERS THAT BE,**" we would strenuously advise a general movement in the profession to promote the measure. If there be any life or spirit in the ranks of medical society, we call upon

them to unite, on this important occasion, and by a wise, temperate, but firm petition to the Colleges of Physicians and Surgeons—or even to the Legislature, endeavour to bring about such a union, such a concours, as that proposed by Mr. Green. No man is better qualified to preside over an association of the profession for this purpose, than the distinguished surgeon last-mentioned, and, if they do not call a meeting, and invite him to the chair, they deserve to remain in disunion, disgrace, and derision to the end of the chapter. A committee of physicians, surgeons, and general practitioners should be instantly formed to deliberate and act on this all-important measure. Now is the time! Let no petty jealousies distract our councils. Let the reformers who have taken the field, unite their efforts with those of more moderate, but more feasible principles, and the victory will be certain. With such a man as Mr. Green for president, the brightest ornaments of the profession, in town and country, will hasten to offer their support, and contribute, in every possible way, to the paramount object of reform. We repeat it, that the measure only wants a starting-point to insure its success. All party-feeling should be detruded from a convocation where the universal good of the profession is the end in view. We shall probably return to the subject before this number is closed.

XIX.

ERGOT OF RYE IN VARIOUS KINDS OF HÆMORRHAGES.

In a former paper we gave the experience of Messrs. Spairani and Pignacea respecting ergot of rye in several uterine affections—we now proceed to state their experience in hæmorrhagic affections of different organs.

EPISTAXIS.

Case 1. A child, five years of age, was subject, for two years past, and without obvious cause, to epistaxis from the left

nostril, which, however, was readily suppressed by the usual means. But sometimes the bleeding continued, more or less, for a considerable time after the principal hæmorrhage. Dr. S. prescribed eight pills, each containing four grains of the ergot of rye, and one to be taken every two hours. In a few hours the hæmorrhage ceased, and returned no more. The medicine was afterwards taken as a preservative.

Case 2. A young woman, aged 15 years, and who had not menstruated, was seized with gastric inflammatory fever on the 10th of August, 1829. On the 14th, in the evening, hæmorrhage took place from the left nostril, and went on to an alarming extent. This hæmorrhage was habitual; but had hitherto been easily restrained. This time it had continued 16 hours when the reporter arrived. A drachm of the ergot of rye was divided into six equal parts, one to be taken every ten minutes. The nostril was cleared of all clots of blood, and no mechanical means of arresting the hæmorrhage were used. The hæmorrhage continued during the exhibition of the medicine; and a second quantity was ordered. Immediately after the exhibition of the first dose from the second batch, the bleeding stopped. The ergot was continued through the day. During the succeeding two days some drops of blood oozed from the nostril, then stopped entirely. The fever ran its usual course—the patient recovered—and lost her habitual epistaxis.

HÆMOPTYSIS.

Case 1. A female, aged 42 years, and who had ceased to menstruate, and who was subject to pulmonic affections, consulted the narrator in the Autumn of 1828, on account of a severe cough, accompanied by sanguineous expectoration, and sometimes pure blood. There was no fever; but the pulse was hard and full—the respiration short and embarrassed. Venesection and purgation were prescribed, with rigid diet. Next day the pulse was natural; but the discharge of blood from the lungs continued. Another bleeding was ordered, and a grain

of digitalis every two hours. On the third day, the hæmoptysis continued, though the other symptoms were mitigated. A drachm of the ergot, divided into eight doses, was ordered to be taken within the 24 hours. After the fifth dose there was not a trace of blood in the expectoration. Another drachm, however, was administered, and no more hæmorrhage was seen.

Case 2. M. G. a young man, aged 21 years, was seized with a severe cough, accompanied by sanguinolent expectoration, in the Summer of 1823, in consequence of stripping off his clothes during a profuse perspiration. Fever and palpitation were added to the other symptoms. Venesection, quietude—dilutents—digitalis, &c. relieved the cough, fever, and palpitation; but the hæmoptysis continued. A drachm of the ergot was therefore administered in 24 hours, and the hæmorrhage was completely arrested. In order to prevent a relapse, another drachm was given in the course of two days. Some months afterwards there was a return of hæmorrhage, though slight in degree; and the young man sent, of his own accord, for a drachm of the ergot, which stopped the discharge.

Case 3. Madam N. B. 72 years of age, had suffered of late years from severe catarrhal affections. In the month of July, 1828, she had a fall, and bruised the left side of the chest; which was followed by cough and spitting of blood. She disregarded the accident, and pursued her usual regimen. The reporter was called on the 20th day after the accident, and, considering the complaint as a topical affection, ordered some leeches to the side, and prescribed low regimen. A drachm of the ergot was ordered in the 24 hours; and as she was in the habit of drinking wine, the usual quantity was allowed, in order to ascertain more correctly the effects, if any, of the medicine. In the course of the next day, the blood disappeared from the expectoration, and was no more seen.

Case 4. A. M. a young girl, about the age of 12, had suffered for some time from severe catarrh. On the 26th January, 1829, she expectorated blood, and more or less of this fluid continued to be ejected by coughing. Half a drachm of the ergot was directed in the 24 hours. The sanguineous expectoration nearly ceased within that time; but the medicine was continued for four days, when it ceased entirely.

HEMATURIA.

Case 1. Mr. C. a gentleman, about 79 years of age, was attacked by ischuria, which resisted the usual remedies, and the catheter was introduced for twenty days in succession. At this time a considerable hæmorrhage took place from the urethra, which continued and became alarming. The ergot was prescribed, and after the first dose, there was no more blood passed from the urethra.

Several other cases are related, where the ergot succeeded in restraining hæmorrhages from the lungs, the womb, the bladder, and other parts; but we think the foregoing are sufficient to excite the attention of the profession to the remedy. There is this recommendation to the article, that there appears to be no possible *objection* to its exhibition. It is not an excitant or stimulant. If it possesses any properties, they are of the *specific* class—that is—they are not under the dominion of any general rules relating to the animal economy.—TRANSACTIONS MEDICALES.

XX.

MONOMANIA—PHRENOLOGY.

IN a late clinical lecture at St. Thomas's Hospital, Dr. Elliotson alluded to a curious case of monomania, which we shall here notice.

The patient was a female, 31 years of age, who had been admitted for a nervous affection, but who was soon found to be monomaniacal. The propensity was to injure some part or other of her body, by internal muscular efforts, and not by attempts

at cutting or maiming. The part of the body that fell under the monomaniacal displeasure was never long the same, but varied from hour to hour—commencing in one part whenever it had ceased in another, so that she had no respite from this harassing propensity. Her judgment on all points was good—she had no hallucination—and was conscious of the unnatural impulse which perpetually led to injure her own body. There was no reason to suspect a feigned disease. She had head-ach, drowsiness, sense of pressure on the head, as well as that of “opening and shutting,” to use her own expression, behind the ears and round the back part of the head. Her breath was so offensive that it was impossible to inhale it without sickness. Her tongue was very much furred. She was sleepless. Her occupation had been that of teaching children, and working at her needle. Dr. Elliotson considered this case as one illustrating the doctrines of phrenology—namely, that it was a case where the organ of destructiveness was in an excited state, and consequently where the “instinct carnassier,” as Spurzheim would term it, was strongly called forth. Here, indeed, it was not a homicidal but a suicidal propensity that existed; yet the nature of both is the same. The peculiarity in the present case, which attracted attention, was the pain and throbbing just over each ear, and extending posteriorly round the head. Every gentleman who attended to the case, was witness of this phenomenon. “This (says Dr. E.) was a very striking phrenological fact,” and he goes on to state his belief in the truth of the general doctrines of phrenology. “I have examined (says he) the subject of phrenology most carefully and unremittingly, and have seldom allowed a day to pass without making some observations upon it; and, after thus examining it for ten or twelve years, I am more and more satisfied of the general truth of what Dr. Gall has announced.”

“With respect, however, to the *treatment* of this woman, our patient, I considered that an inflammatory affection of that part of the head, was the cause of the pain and morbid desire which she experienced. I cupped her

behind the ears to twelve ounces, and gave her calomel five grains, twice a day, and put her on low diet. Leeches were again and again applied to that part. She was admitted on the 18th of January, and 20 leeches were applied to the seat of the pain every day until the 8th of February. From that time they were applied every other day for a fortnight. Her mouth soon became tender, and as that took place, her tongue became clean, and her breath ceased to stink. At last it began to smell of mercury, but the odour was quite changed in its character, and was supportable. She twisted her head less and less, and she slept more. She was observed to sleep several hours in the night. The pain in the head left her, and she now felt relieved from the disposition to strain and injure herself. She was a deformed woman, and the lungs and heart had hardly any room to play. She was subject to more or less bronchitis, and was seized with an acute attack from being placed near a window, and it was necessary, on account of this affection of the chest, to bleed her. She was bled to six ounces, recovered from the bronchitis, was now really well, and was to be presented on the following Thursday. On the Saturday, however, being in the ward, just as usual, she was seized, I understand, (for I had left the hospital,) with pain in the abdomen, and in a few minutes died. The friends came for the body before the inspection could be completed. The head was examined, and also the chest, but nothing morbid was found in either, except the adhesion of the dura mater to the brain above the meatus auditorius externus. On account of the friends waiting for the body, the examination of the abdomen was not proceeded with, and therefore the cause of death is shut up in mystery. Whether she died from a rupture of anything in the abdomen, I do not know, but she was seized with pain there, and in two minutes was dead. I have no idea at all of the nature of the cause of her death, although I am quite satisfied that it was in the abdomen.”

Dr. Elliotson mentions some curious cases of monomania, and among others that of a

lady who was constantly harassed with the dread of pollution from filth in the streets or houses. In another individual, the dread of typhous contagion was predominant, so that she would not allow her medical attendant to come in contact with her. We could add half a hundred instances of similar kinds from our own experience; but the narrative would be tiresome and useless. One of these is a lady who dreads the contagion of hydrophobia, and dare not walk the streets lest she should encounter a mad animal, or the saliva of one, which to her is as dreadful as the bite.

XXI.

GLASGOW ROYAL INFIRMARY.*

TRAUMATIC TETANUS.

Two cases of this terrible disease are recorded, with the view of adding something to our stock of information, if such it can be called, respecting its pathology. We shall notice them very shortly.

Case 1. Patrick Vailly, æt. 15, was blown in the air and a good deal scorched, on the 17th April, 1830, by the explosion of a steam engine boiler. Some collapse succeeded the injury, and after that pain in the abdomen requiring depletion. On the 27th he was convalescent, when he complained of pain in the abdomen, not increased on pressure, and on the 29th there was opisthotonos. On the 3d of May the patient died. The treatment consisted in purging with calomel and castor oil and blistering the spine. Immediately after death the body was placed with the face to the floor.

Section Cadaveris:—24 hor. post mortem.
“The whole spinous processes and calvarium were removed, the brain and thecae vertebrarum fully exposed. There was a little serous fluid at the base of the brain, betwixt the tunica arachnoidea and pia mater. The brain was considerably more vascular than usual, and on the posterior part of both lobes of the cerebellum there existed an ecchymosed appearance, which could easily be removed by raising the pia mater. The medulla spinalis had a perfectly healthy appearance, but a considerable quantity of partly fluid, partly coagulated blood, existed betwixt the theca and the vertebræ. The vesicated surfaces occupied the lower half of the left leg, and the outer and lower half of the right leg. Both had a green sloughy aspect, and the cellular substance was much inflamed. The veins did not appear more vascular than natural, and the arteries appeared healthy. The nerves were also carefully examined; the cutaneous of both legs, particularly the communicans tibialis and the communicating branches of the peroneal nerve with the tibialis communis, were inflamed at the seat of the injury; tracing them upwards above this point they were perfectly healthy, except that portion of the peroneal which turns over the head of the fibula, there it was again distinctly very vascular, thus leaving an intermediate portion perfectly free from the appearances of inflammation. The vascularity appeared to be confined to the sheath of each nerve; the deep-seated branches appeared to be quite natural. No other morbid appearances were detected.”

Case 2. William Fleming, æt. 17, had the ring and middle fingers of the right hand much lacerated and injured by machinery on the 14th July, 1830; the last phalanx of the middle finger was only adherent to the second by a small slip of skin, and it was removed accordingly. On the 21st he began to experience severe pain in the fingers, and at the same time he was seized with tetanic symptoms. He was admitted on the 22d. The tetanic symptoms were somewhat aggravated, and

* Glasgow Journal, No. XIII.

the second and last phalanges of the injured fingers were completely gangrenous, and the second phalanx of both was found fractured. The fingers were removed, and calomel, with leeches to the nucha, and purgatives employed. We need not mention the subsequent symptoms or treatment, suffice it that the patient died early on the 24th, the spasms continuing both frequent and severe.

Seclio Cadaveris:—24 hor. post mortem.

"The body was allowed to lie the usual way on the back till the time of inspection. The calvarium and spinous ridges were removed, fully exposing the theca vertebrarum, down to the cauda equina; there was no effusion on the brain or its membranes, and its substance was natural throughout. No effusion existed between the theca and the vertebræ; the theca was healthy, and betwixt it and the spinal cord was a preternatural quantity of serum. The cord itself was of a pale colour. The nerves on each side of the remaining phalanx of the ring finger were very vascular. On tracing upwards the ulnar nerve from this point to the elbow, it was of its natural colour, but here again it became very vascular for about the extent of two inches. In the axilla it again presented a similar appearance as at the elbow, the portion of it intervening betwixt these two points being healthy. Tracing the median nerve in the same way as the ulnar, it was found perfectly natural, from its digital branch, which supplied the radial side of the ring finger, (and which, as stated above, was much inflamed,) till about the middle of the arm, when it again presented an inflamed appearance for the extent of one and a half inch. The portion of it intervening betwixt this part and that confined to the axilla, where it again became vascular, was natural. This vascularity throughout, was not confined to the sheaths of the nerves, but occupied their substance; the radial and superficial nerves, of the arm, along with its veins and arteries, were perfectly natural; the lumbar nerves were unaffected; the œsophagus was examined, and found healthy; the trachea appeared inflamed, and

contained a large quantity of greenish coloured mucus; the other thoracic viscera and digestive organs natural."

The inference which appears to be drawn from the foregoing case by Dr. Perry, is, that he would be warranted in treating any case of the kind, as a local inflammation of the nerves leading from the seat of the injury, the interruption of the suppurative process in the wound being one of the first appearances. We should be sorry to form these or any other conclusions on two such cases.

In a case of lithotomy related by Dr. Perry, nine stones were found in and removed from the bladder. The prostate was enlarged; the symptoms of stone in the bladder had existed for ten months previous to the performance of the operation. Two of the stones were situated in the inferior fundus of the bladder, and were of a flattened shape. The remaining seven were placed at the upper part of the bladder behind the pubes, each of the size and figure of chestnuts, and lying as if they had all been compressed and wedged together in the form of a ball. The stones were composed of the triple phosphate with a nucleus of lithic acid. The urine had occasionally contained "sand and slime," but never any blood.

SUDDEN DEATH FROM DREAD OF OPERATION.

A man aged 40, was admitted with very severe laceration of the left fore-arm, which had happened on the preceding day from the limb being drawn between two wheels. The integuments above the wrist-joint were emphysematous, the wounds emitted a gangrenous fetor, the pulse could not be felt at the wrist, the tongue was white, the skin warm. Amputation was proposed and rejected; a tourniquet was kept constantly round the arm, and port wine poultices applied.

The case went on well for six or seven days, when the line of separation between the sound and gangrenous parts was distinct. The injury done to the hard and soft textures of the fore-arm was too great notwithstanding to admit of any reasonable ex-

pectation of being enabled to save the limb, and a communication to that effect was made in a forcible manner to the patient. His hopes had been previously excited—they were now damped—he began to shake—and earnestly declared that he could never submit to the operation. He soon afterwards sank into a comatose state—complained of nothing—the pulse was weak—the pupils were natural—a cold sweat overspread the body—ammonia and brandy were exhibited, but he sank, and died at 1, p. m. next day. On dissection, a tea spoonful of serum was found in both ventricles. The radial, ulnar, and anterior interosseous arteries of the injured fore-arm were ruptured; the bones were denuded of their periosteum and rasped.

We cannot but imagine that surgeons are often not sufficiently careful, in hospital practice, of informing patients that they must submit to operations. On one or two occasions we have seen bad effects from breaking intelligence of this kind too abruptly. We have seen a small wound in the thumb assume a sloughing character, immediately after a communication which alarmed the patient in a considerable degree.

ANEURISM BY ANASTOMOSIS.

Case 1. A girl, æt. mens. 18, admitted May 1st, with a large tumour, of a purple cast and doughy feel, occupying the radial half of the palm, and part of the ball of the thumb of the left hand; it frequently discharged a considerable quantity of blood through three small openings on its surface. Pressure diminished the tumour much, but its size returned on its withdrawal. Some months previously its removal by the knife had been attempted; it had been twice punctured, and some difficulty arose in arresting the bleeding. On the 4th May the tumour was removed by incision, and the actual cautery afterwards applied. On the 21st the patient was dismissed, with the wound nearly cicatrized.

Case 2. A child, aged seven months, admitted with a tumour an inch long and half

an inch broad at the root of the nose, of purple colour, with small red vessels on its surface, reducible by pressure to a third of its dimensions. It occupied the whole space between the inner canthus of the right eye and the mesial line of the nose, and extended from the inner end of the right eyebrow to an horizontal line drawn across the face from the right ala of the nostril, covering the lachrymal duct and a third of the lower eyelid. When partially emptied, its attachment to the subjacent parts seemed firm at the inner angle of the eye only. Three months previously the child had received a blow upon the part from the edge of a hat; in a week afterwards a small purple spot was observed, which had since continued to increase.

For three weeks pressure on the tumour was made by a spring and pad, under which it ulcerated deeply, but again increased to its former size, on the withdrawal of the pad. An attempt to destroy it with the caustic potash failed next; and this was succeeded by the actual cautery, which seemed to accelerate the extension of the tumour. An incision was made at the lower portion of tumour, and carried along the side of the ala-nasi to its upper part at the end of the eyebrow; and an attempt made to extirpate it from below. The flow of blood was, however, so rapid and profuse, that to prevent fatal consequences, it was necessary to desist, and apply the actual cautery, which was in readiness. The bleeding was by this means stopped, and the wound dressed with resinous ointment. On the following day, the child was excessively weak, and refused the breast. It had been ordered a little wine after the operation, which was occasionally given for the next two days. By the 25th the tumour had greatly diminished, though still a little puffiness remained on the nasal edge of the upper eyelid, which was occasionally touched with the argent. nitrat. The mother wishing to go home, was desired to return in a fortnight, which she did. Nothing farther was done; the tumour gradually contracted; the skin is natural in colour; the eye is perfect. With the exception of a

little contraction of the internal angle of the upper eyelid, the cicatrix is scarcely perceptible.

We may here introduce a proposition of our friend, Dr. Marshall Hall's, which appears in a late number of the *Medical Gazette*. In a case of oval *nævus*, rather larger than a shilling, which the Doctor attended with Mr. Heming of Kentish Town, he adopted the following plan. A couching-needle with cutting edges was introduced at one point of the circumference of the *nævus*, close by the adjoining healthy skin, and thence was made to pass through the tumour in eight or nine different directions, so as to produce slight incisions through its textures, parallel with the skin, but not so as to pierce the tumour in any other part. A little pressure by means of strips of adhesive plaster was applied over the tumour. For weeks no apparent effect was produced, but in half a year the tumour was found to have disappeared, and the colour of the skin to be nearly natural, without any appearance of scar. We hardly know what credit to attribute to the operation, for the cure was very tardy. The object of Dr. Hall is to prevent scar. The operation might be repeated at longer or shorter intervals, and with more or less numerous punctures, according to circumstances. But to return to Dr. Perry's report. He appears to be an advocate for the torsion of arteries now extensively practised by M. Amussat.

"I have generally applied ligatures to the large arteries, treating the smaller by torsion. In the fingers and toes torsion only was used, and in the *mammæ*, generally torsion; in the latter cases, and tumours, it is particularly useful, as it is often necessary to dissect deeply under the skin, and the leaving of ligatures keeps up a purulent discharge; when ligatures are used in such cases, it is better to use small silk ones, and cut away both ends. The practice of suppressing hæmorrhage by torsion, or bruising of the arteries, is not altogether new; I partially practised it in 1820, along with my then colleague, the late Dr. G. C. Montegath. The circumstance which gave rise

to it, was a casual conversation which occurred respecting a case of laceration of the arm by machinery, where the vessels were torn across, and no bleeding followed, a circumstance by no means unfrequent. It was a natural inference, that by bruising the arteries, destroying their vitality for a short space, they would soon cease to bleed, as a coagulum would form in their inactive extremities. From this analogy, we frequently had recourse to bruising or twisting the smaller arteries during the operation, without thinking it a matter of such importance as to call it a discovery. I do not mean by this to detract from the merit of M. Amussat, who has recommended and carried the practice farther than I have yet ventured to go. As it is often of great importance during operations to prevent as much as possible the loss of blood, whether arterial or venous, I have been in the practice of using a pair of button forceps for laying hold of the bleeding vessels, and twisting them, if arteries, or if large veins, allowing them to remain fixed till the operation is finished, and the tourniquet removed. In this way much blood may be saved, and little time lost, and in removing tumours, it prevents the operator from being embarrassed with the blood.

The button forceps may also be applied to an equally, if not more important, class of cases; I mean, for the cure of recently-punctured arteries, or in place of ligatures in cases of aneurism. If a wound is made, for instance, in the brachial artery, by bleeding, the external wound may be enlarged, and the side of the artery, where the wound is, grasped by the forceps, the button pushed down, and the forceps left for 24 hours in the wound, (the adhesion will take place in less time,) firmly fixed by means of the head of the forceps being passed through a slit in a piece of sponge, and this again fixed on the arm, to prevent motion, by strips of adhesive plaster. The forceps must be small, and rounded at the point, (perhaps those made of silver would suit best, as they do not corrode,) and the wound closed and kept together on each side of the for-

ceps by strips of plaster, or, if it is wished, the whole calibre of the artery may be included in the forceps, and the flow of blood completely interrupted, till the sides of the vessel adhere. I may be asked, what advantage this has over the ligature? In the first place, it is easier applied, there is less danger of including the nerves, there is no risk of insulating the artery from its connexions, and, consequently, less of secondary hæmorrhage. I shall, however, postpone any farther particulars respecting this plan of treatment until the next number of the Journal.*

We cannot say that the foregoing statements bring conviction to our minds. We have been and continue to be sceptical respecting the advantages, nay, even the safety of M. Amussat's method. We would not oppose a plan because it is new, but neither would we adopt it because it is new. It requires both caution and time to appreciate the merits or the mischiefs of all new modes of practice. The advocates for torsion ground their arguments on the fact that lacerated arteries frequently do not bleed. Very true; but occasionally they do so, and not very unfrequently secondary hæmorrhage occurs from them. However, as we have already hinted, we yet want many facts to justify a sound and practical man in assenting to M. Amussat's opinions. The statements of M. Amussat himself are certainly strong, but what new medicine or what new operation ever wanted powerful *facts* to support it? On the 31st January M. Amussat introduced to the Academy of France four patients on whom he had operated. Three were children of seven, nine, and twelve years of age, who had had their right thighs amputated about the same time, for white-swelling of the knee-joint. The next was a man fifty years of age, the end of whose humerus was shattered by a ball; in him the amputation was not performed till the 26th day. The arteries were twisted in all, and secondary hæmorrhage occurred in none. In the youngest patient the wound was perfectly healed by the first intention in seven days. We repeat that evidence enough has been brought forward

by M. Amussat to prove that his proposal is not to be scouted: but not enough to induce good surgeons to yield blind acquiescence and assent to all the advantages claimed for it by its author. Time, and time only, will determine the merits of the case.

XXII.

DR. RAMADGE AND ST. JOHN LONG.

THE letter which has been published with the signature of F. H. RAMADGE—FELLOW of the ROYAL COLLEGE of PHYSICIANS, and addressed to St. John Long, is calculated to call forth the most painful reflections in the mind of every man who has the honour of the medical profession at heart. Of the author we know little—and never wish to know more. It is with the *LETTER*—the *littera scripta* that we have to do, as the legitimate object of criticism. A more disingenuous and sickening epistle never emanated from the press of this or any other enlightened country. If the *LETTER* of an individual were capable of disgracing a whole profession, the letter in question is calculated most effectually to do so! While it labours, by every art, and by every species of misrepresentation, to support an ignorant quack, it endeavours, by the same means, to traduce a liberal profession! The wealth of Golconda's mines and the proffer of universal dominion would not induce us to be the author of such a production. Of the objects or intentions of the writer we profess not to judge. They are only known to himself and to his God. But we conceive that the inevitable effect of that letter will be a reprobation of the writer by the whole body of his brethren. It is impossible it can be otherwise. The man who justifies and even extols an ignorant Charlatan, reviling and defaming the regular members of the Faculty at the same moment, cannot expect any thing but indignant contempt from those whom he labours to injure and degrade.*

* Since writing the above, Dr. R. has been expelled the London Medical Society.

This long epistle is thrown into numerical sections, like the counts of an indictment—and no doubt they have counted well, both for the inditer and *endicted*. In the *first* count, the writer, of course, professes rigid *impartiality* between the quack and the faculty! He has taken a truly *Hibernian* method of shewing his neutrality! In the *second* count there is abundance of hypocrisy, but a lamentable lack of truth. The writer was at first strongly persuaded that Long's treatment of Miss Cashin and Mrs. Lloyd had led to their untimely death. This persuasion was of course founded on the evidence of facts. But after a long time—"after deep reflection"--(nothing else?) says the impartial letter-writer, "my opinion is now entirely changed." The *third* count tells the quack what the quack would fain forget, namely, that Miss Catherine Cashin was his patient, and that, "apprehending her *disorder* (what disorder?) might become as *precarious* as that which *promised* speedily to terminate in the demise of her sister," he employed precautionary measures, &c. The writer then justifies Long's employment of one or two remedies for all diseases, on the plea that "many eminent practitioners of the present day, are in the habit of employing only one or two remedies in the cure of almost every disease." The tendency of this last assertion, published by a Fellow of the College of Physicians, in a common newspaper, is obvious enough. The assertion itself is as mischievous as it is void of foundation in truth. The writer appears to assume it as a fact that Miss C. Cashin *did* labour under *disorder* at the time when the quack began his operations—though he must have been perfectly conscious at the time of penning the above, if he trusted to facts and not to fictions, that the lady was in perfect health! Such is the impartiality of the letter!

The *fourth* count is as *nate* a piece of puffery for Long, as ever emanated from DAY and MARTIN's factory in the vicinity of ELY PLACE. The writer, it seems, has been at immense pains to ascertain, by "a multitude of inquiries," the innocuous qualities of Long's liniment—and in no case—not

even excepting those of Miss Cashin and Mrs. Lloyd, did the liniment or the inhalation produce the least "noxious or unpleasant effect."

But the *fifth* count is the most barefaced and impudent misrepresentation that we have ever read. It is a beautiful specimen of Irish brass!

"The *post-mortem* examination of Miss Cashin, satisfactorily proves to me the correctness of your judgment as to the existence of *pulmonary disease*, and which, in my opinion, fully justified you in the steps you took, in the hope of suspending or removing an affection of such fatal tendency."

Will it be believed, that in our own day, a FELLOW of the ROYAL COLLEGE of PHYSICIANS would, in the face of facts recorded on oath by several medical men, come forward and tell the public that the examination of Miss Cashin's body exhibited *pulmonary disease*, when the whole of the medical witnesses swore that the lungs were perfectly healthy! This monstrous assertion, too, is made by a man who did not see the body examined, but who coolly avers that the examiners saw what they declare upon oath that they did *not* see!!! This, in fact, is giving the *lie direct* to all the medical witnesses, and to ourselves among the rest—for we saw the body examined. The writer of the letter, therefore, cannot expect that men, whose veracity is thus unceremoniously and unjustly impugned, can shew much delicacy, *in manner*, to him who thus insults them.

After the foregoing specimen of veracity and impartiality in the LETTER, it is almost an insult to our readers to take further notice of it. The whole is a tissue of presumption, illiberality, and malevolence. The following reflection on his brethren, is deserving of notice, because we happen to be able to illustrate it.

"As ten days elapsed before Mr. Vance was called in, after Mrs. Lloyd had been under the care of another practitioner, I consider it needless to make any further comment upon his evidence, with this exception, that, 'if you stated Mrs. Lloyd had suffered disease of the chest, which dissec-

tion is said not to have proved to be the case,' your mistake is not solitary, for I hardly know *of one* of the profession, of whom I have not heard, and of many of whom I have not been a *personal witness of their erroneous judgments*. I may here relate a case in point."

Now for the illustration. It is not many months since the writer of this article was requested to visit a young surgeon, (Mr. Wittle) lately returned from India, and then lodging in Tottenham Court-road, in consequence of Dr. Ramadge's decision that there was empyema of the left side of the chest, requiring *paracentesis thoracis*. The brother of the patient insisted on Dr. ——— seeing him before the operation should be performed. Dr. ——— examined the chest, and could discover no sign whatever of empyema. He took Dr. Barry to the patient, who, after careful auscultation and percussion, declared there was not a drop of fluid in the cavity of the pleura! It is hardly necessary to add that the gentleman soon got well without any operation, and is lately married! So much for Dr. Ramadge's skill in auscultation, and for the numerous errors of judgment which he has witnessed among his brethren. This anecdote, which Dr. ——— never before mentioned, either publicly or privately, but which is now called for, on account of the illiberal attack on his brethren, may teach Dr. Ramadge that he who lives in a house of glass should not be too anxious to get into the habit of throwing stones, lest some panes in his own skylight be broken in the diversion.

XXIII.

LIGATURE OF THE CAROTID ARTERY FOR HEMIPLEGIA, WITH A CASE IN ILLUSTRATION. By Mr. PRESTON, Assistant-Surgeon, General Depôt of European Prisoners, Cuddalore.

THE paper which has been transmitted to us under the above title, was too detailed

and voluminous for insertion in this journal, and therefore we have given an abridgement of it, reserving the original document for the author, if he claims it.

Case. Peter Rachford, ætat. 50, was admitted into the Depôt Hospital, on the 25th October, 1830, with the following symptoms:—loss of power and sensation in the left side of the body—left cheek droops and is drawn towards the opposite, when he attempts to speak, which is now almost impracticable—pain in the paralytic leg—head free—circulation natural—skin cold—tongue clean—bowels open. The foregoing symptoms came on suddenly the preceding night. The man has always been a hard liver—and had been much intoxicated about a week before the seizure. A blister was applied to the head and ten grains of calomel were exhibited twice a day. On the 29th the mouth was slightly affected: and the calomel being continued, salivation ensued. About this time iodine was also given, and a seton was inserted in the nape of the neck. On the 13th November, there being no mitigation of the paralytic symptoms, we find the nux vomica was exhibited. On the 17th he evinced pain and tenderness in the region of the liver, for which he was leeches and blistered. The pain was removed, but the other symptoms remained nearly the same.

On the 22d November, the paralytic complaint being in statu quo, Mr. Preston determined on tying the carotid artery of the right side in conformity with the general fact, that the cause of the paralysis is in the opposite side of the head. The steps of the operation need not be detailed. In the evening of the same day, there was no perceptible inconvenience from the operation.

23d. Slept pretty well last night—skin warm—pulse 100, and not intermitting, as it had generally done before—tongue thickly furred, but moist—slight cough, and uneasiness in the chest. There was also some difficulty of deglutition. In the evening the pulse was down to 80, and soft—skin warm and moist—bowels confined. Ol. ricini statim.

24th. Pulse 60, irregular, and intermittent. Complains of more pain in the paralytic arm.

26th. He appeared to speak more distinctly, and in two days more spoke as distinctly as at any period of his life. On the first of December he was put upon half-diet. 4th Dec. Has considerably recovered the power of the left leg, which he is able to draw up and down. He this day attempted to walk, but did not succeed. The arm is still completely powerless. The appetite is good, and he sleeps well. 12th. December, we find the patient able to walk alone, with the aid of a stick. The arm is still paralytic. 15th. The wound is quite healed, except at the spot where the ligature protrudes. He was discharged the hospital on the 30th of December, at his own request, being able to walk about very comfortably with the assistance of a stick, but the paralyzed arm still without any muscular power.

The following are Mr. Preston's reasons for the operation.

"In tying the carotid artery for palsy, I have deviated entirely from the treatment pursued in that disease, and was led to undertake the operation from the consideration which I subjoin.

I conceived generally that it might be had recourse to, with great advantage, in diseases of the brain, especially such as we had reason to believe, depended upon congestion, inflammation or irritation of that organ; as its principal effect would be, to diminish its supply of blood—an object we have more or less in view in the treatment of cerebral affections; although it cannot always be accomplished by depletory measures.

Venesection and the application of leeches often increase the determination to the head; partly by the disturbance they excite generally in the system; and partly by the reaction which frequently follows their employment.

It appeared to me also that a more durable, and more decided effect would be induced by this operation than by any mode of depletion; and that it might entirely

remove, or greatly diminish congestion and chronic inflammation of the brain and its membranes; the causes, I believe of many diseases, which the common modes of treatment too frequently fail of relieving.

As palsy may be induced by some change in the brain itself, either functional or organic, without any complication of the spinal marrow, it appeared to me a disease likely to be affected by this operation; and as, from the suddenness of the attack in the present case, I was inclined to attribute it to some such change—(I conceived extravasation within the cranium—) it seemed a favourable opportunity for trying its effects. I believed that the pressure caused by the extravasated fluid, might be removed by the diminution in the volume of blood sent to the head; which would be affected by tying one of the carotid arteries. The paralysis too, I was aware might depend upon a very different cause from that conjectured, and yet be removed by this operation: for we know too little of the diseases of the brain and its different affections, to be certain in every case of their precise nature, and to predict always with accuracy the result of the measures we employ with a view of removing them. If the palsy arose from congestion, inflammation or irritation, it appeared equally eligible as in the case supposed by me; but my principal reason for undertaking it in the present instance, supported by the arguments I have already adduced, was, that the case appeared otherwise hopeless; the disease being altogether unaffected by the remedies I had employed and the patient's strength beginning to sink.

Obliteration of the common carotid artery on one side has been frequently effected, without any ill consequences attributable solely to it, and without any disturbance of the brain, heart or lungs. How far it would be safe to tie this artery on both sides, is a question of very serious consideration. It has been done repeatedly on the dog by Bichat, and death occurred in only two instances. I have myself tied both these arteries twice in the same animal but without producing any effect.

Under desperate circumstances, and at an

interval of some time after tying the first ; we would, provided no relief followed, and the case otherwise hopeless, I conceive, be justified in tying the second. It might, however, be done with a slip knot, or in such a manner as to admit of the ligature being loosened, should any alarming symptoms follow, or the ligature might be applied so as to intercept only a portion of the blood, sent to the head by narrowing, at the part, the calibre of the artery—we might thus easily increase or diminish according to circumstances the column of blood which it transmits.

The operation itself excites no constitutional disturbances, or but very little.

I quote the passage from Bichat—in which however there is some obscurity, probably from some error of the translator—as also the same, worded somewhat differently, and found in Ree's Encyclopædia, article—heart.

From Bichat.—

‘It is easy to prove that the movement of the blood is necessary to that of the brain, expose the brain of an animal in part and tie the carotids.

In such case, the cerebral movement will be sometimes weakened, and then the animal will be stupified, at other times the vertebral arteries will exactly supply the place of the carotids, and then there will be nothing deranged in the principal functions of the brain: for there is always a relation existing between the alternate rise and fall of the cerebral mass and the energy of life which it displays.

In general, the obliteration of the carotids is never suddenly mortal. Animals will live without them, for at least a considerable time. I have kept dogs in this state for several days, and have afterwards made use of them for other experiments; two however died in the course of six hours after the application of the ligatures.—Gould's Translation, p. 157.

The part that seems obscure in the foregoing paragraph I have italicised. The number of dogs that died after this operation is not specified, nor at what interval of time.

The same passage is thus worded in Ree's Encyclopædia.

‘The heart, which propels the red blood,

affects the brain by the motion which it communicates to that organ. If the arrival of this fluid be completely intercepted the motion of the brain ceases, and life is extinguished; where the carotids alone are tied, the vertebral arteries still keep up the movement and no ill effect is produced.’

The diseases in which I conceive this operation most likely to prove serviceable, are, such as depend upon determination of blood to the brain, congestion, inflammation, or irritation of that organ; but it must be understood, that I propose it as a remedy only after other means have failed. I may here specify apoplexy, phrenitis, hydrocephalus, many cases of injuries of the head, palsy, epilepsy, and insanity; which latter disease is now generally admitted—indeed known to depend upon a change of some kind in the brain or its membranes; most commonly some modification of inflammation or its products. Where this organ in insanity is affected only from sympathy with some other; how far tying one of the carotid arteries would be serviceable must, I fancy, depend upon considerations connected with each particular case. Here, as in more dangerous diseases, both these vessels might be tied with the precautions already stated; allowing a longer interval of time to elapse between the operations. There are some other points connected with this subject upon which I am at present unable to enter, but which upon a future occasion I hope to lay before the Board.”

XXIV.

CHARITABLE INFIRMARY.

ON SPINAL IRRITATION. By Dr.
CORRIGAN.

WE are not sorry to find Dr. Corrigan in the field of practical medicine, instead of the labyrinth of the theory, or the deceptive quagmires of experiment. Although we have taken the liberty to differ from Dr. C.,

respecting the action and sounds of the heart, we shall be happy to meet him on less debateable ground—where cultivation will be sure to produce a good harvest.

In a clinical lecture delivered at the Charitable Infirmary, in Dublin, and published in our weekly contemporary, the *LANCET*, we find some interesting cases, with observations, of SPINAL IRRITATION, which we here propose to notice.

Dr. C. prefaces his observations on spinal irritation by remarking that morbid anatomy cannot be expected to throw much light on our investigation here, since the disease, though distressing, is seldom fatal—and since diseases of the nervous system do not always leave any visible trace of their existence, when death ensues.

“It fortunately, however, happens, that we have other means than those afforded by morbid anatomy, for ascertaining the seat of the disease, and by which we can, even during life, trace most distinctly the connecting link between cause and effect, or, in other words, between the diseased action and its symptoms. If we meet a patient complaining of hemicrania, or of pains in the neck and face resembling *tic douloureux*, and that we can produce or aggravate these distressing symptoms by pressure on the cervical vertebræ;—if we find another complaining of fits, of suffocative breathing, palpitation of the heart, and distressing sense of weight behind the sternum, and that we bring on, or aggravate, these symptoms by pressing on the dorsal vertebræ:—if we find another complaining of pains in the epigastrium and both hypochondria and *globus hystericus*, and of flatulent distention of the stomach, and that we can at any time bring on or aggravate all these by pressure on the lowest dorsal vertebræ;—if we find pains complained of in different parts of the body, in the right or left mamma, right or left hypochondrium, or in varied parts of the abdomen, and that pressure on the part of the spine generally corresponding in situation to the seat of the pain, aggravates the pain, or produces it if previously absent;—if we find, moreover, that local applications over the spine remove the distant symptoms or

pains, not relieved by any other mode of treatment;—the fair inference from all this surely is, that the seat of disease is within the spine, and the connexion between the symptoms and the disease, between cause and effect, is, in such cases, more clearly exposed before us, than when even after death from acute disease, the knife of the pathologist exhibits to us some important lesion of structure, of which, rigidly speaking, the most we could say is, that it was probably the cause of the symptoms during life.”

Case 1. This was a man, aged 27 years, a coach-painter, who was admitted on the 27th February into the Charitable Infirmary, complaining of flatulence, pain and tightness in the head and at the scrobiculus cordis, pallor and anxiety of countenance. The tongue was clean, pulse 90, respiration a little increased.

“There is pain along the course of the supra-orbital nerve of the left side. His sight is weak, and he cannot raise his eyes to any object above him, without experiencing pain and giddiness of the head. He is frequently attacked by ‘*globus hystericus*.’ He describes it as a ‘ball of some kind’ arising in his stomach, and ascending to his throat, where he feels it choking him; he also frequently experiences a sensation of tightness across his chest, which often prevents him from speaking when he wishes to do so. For the last two days he has had pain along the calf of the left leg, and weakness across his loins. His appetite is not impaired, but strength is much diminished. He has frequent pains across the epigastrium and both hypochondria, his nights are restless, and he starts often from his sleep, aroused by terrifying dreams; there is slight cough: epigastrium and both hypochondria are very tender under pressure, and pressure on the epigastrium produces instant cough and difficulty of respiration. The result of pressure along the spinal column is as follows:—pressure on any of the cervical vertebræ produces pain

and lightness of the head ; on the superior dorsal, produces tightness in the chest ; on the inferior dorsal and first lumbar, produces pain at the scrobiculus cordis, flushing of the face, perspiration, and violent eructation of wind from the stomach ; lower down produces no effect."

The patient was treated in a very simple manner. Rest, aloetic or oily purgatives ; cupping, leeching, and blistering the spine, with the application of antimonial ointment, constituted the whole of the treatment, and the man was discharged cured on the 4th of April, or about 50 days from the time of his reception.

Without casting the shadow of a doubt on the facts of the above case, we cannot help expressing a little scepticism as to the inferred pathology of the disease. We have seen so many cases, especially in the female sex, where the above anomalous phenomena have presented themselves, but where the result disproved the cause to be spinal irritation, that we look on Dr. C.'s case with some distrust. The fact, however, is indisputable, that, in these cases, pressure on the spine often causes effects which are almost inconceivable. In the case of a young lady whom we have attended for some years, we were surprised to find that pressure on the two or three superior dorsal vertebræ produced convulsive motions of the lower extremities, and even of the abdominal muscles. We thought we had discovered a key to the host of nervous and hysterical symptoms with which this lady was harassed : but we were deceived. Horizontal posture, leeches, blisters, antimonial plasters, produced not the slightest relief, but rather aggravated the complaint. We afterwards found that a far less degree of pressure a little to the left of the epigastrium induced the same convulsive action of the muscles, as pressure on the spine—and even in a much higher degree. These phenomena are almost inscrutable. That they are referable to the nervous system, we have no doubt ; but that "SPINAL IRRITATION" conveys a true idea of their nature or seat, we are disposed to deny. And as to the cause, it will probably lead us astray.

In the case to which we have just alluded, the presence of food, more especially any food of difficult digestion, in the stomach, produced not only twitching of various muscles, but a strong disposition to *suicide*. So dreadful were the "MENTAL IMPRESSIONS," (the term applied by the patient,) that she nearly put an end to her own existence by starvation, to avoid the horrible feelings produced by food in the stomach ! It is a curious fact, but one worth recording, that the medicine which was most operative in preventing these mental impressions, was five grains of the hydrargyrum cum creta taken an hour before dinner. The unhappy patient has often declared that, without the "grey powder" she had rather die than take food at dinner ! We shall here introduce two or three other cases detailed by Dr. Corrigan.

Case 2. "The patient was a lady who after her first confinement, suffered for several months from great weakness. When I saw her, about five months after her confinement, she complained of severe cough, difficult expectoration, and distressing sense of suffocation ; these symptoms, particularly the last, much increased in the evening. There were constant pains in both hypochondria, in the epigastrium, and behind the lower third of the sternum. These pains were not increased by full inspiration, and only in scattered points of the right hypochondrium by pressure. Pressure on the last dorsal vertebræ aggravated them. Leeches were applied to the spine, and a recumbent posture was enjoined. On the next day she was much relieved of all her symptoms, and on the day following felt so very well, that she left the bed ; and now the disease showed one of its most striking characters, viz. its connexion with change of posture. The exertion of dressing brought back all the symptoms in minor degree, although previous to rising from bed, no trace of the disease was observable. They again disappeared after short rest in a recumbent posture on a sofa. Rest was again

enjoined, and the improvement again proceeded rapidly, convalescence being only interrupted by a walk a little too long, which, like the exertion of dressing already alluded to, produced a temporary aggravation of the symptoms."

Case 3. "The patient, a gentleman of about 35 years of age, complained of distressing paroxysms, which came on frequently in the course of each day, and often without any apparent immediate cause. The paroxysms commenced with a sensation of great distress, referred to some internal part behind the inferior third of the sternum, and rising from it upwards to the head; his eyes filled with tears he became incapable of speaking, and his mental agony during the continuance of the fit was extreme. The paroxysm did not last more than a few minutes, and was then terminated by one or two heavy long-drawn sighs. The clapping of a door, an unexpected meeting with an acquaintance, or any similar trivial cause, was sufficient to bring it on. It seemed as if, in this case, the sympathetic ganglion, to which some refer the seat of the passions, was engaged, for pressure on the epigastrium was immediately followed by all the distressing symptoms already described. The third, fourth, and fifth dorsal vertebræ were tender, and pressure on them was attended by the same effects. A towel was dipped in warm water and passed slowly down the spine. The moment it came over the tender vertebræ, the same results followed as from pressure. The history of the case was this: About twelve months before, this gentleman suffered under much anxiety of mind from a weight of business; then, for the first time, he felt the sensations described, which never up to the time of my visit quitted him. The same treatment was prescribed as for the other cases."

Case 4. "A lady, æt. 50, came to town for advice with the following symptoms:—She felt severe pain about the umbilicus, and in the left lumbar region; this pain was always brought on, or greatly aggravated, by taking food; relief was obtained after a

meal by lying down, and the pain which remained present during the day always ceased soon after retiring to bed at night; the abdomen was soft, and the digestive functions well performed; the spine had two lateral curvatures; there was a little tenderness, under pressure, of the last two lumbar vertebræ, but pressure on them did not bring on the pain of side. The history of the case was this: having previously suffered under great depression of spirits, consequent on the death of several of her children, this lady first felt, about three months before, some uneasy sensations about her shoulders, which obliged her to rest her back when knitting or sewing. These were followed by pain in the region of the liver, extending into the right hip, and, finally, all seemed to concentrate themselves in the intense pain of the left side already described. For the pain in the region of the liver she had been put under a course of mercury, and finally, from a fear that malignant disease of the stomach, or some of the organs in its immediate vicinity, was setting in, she was put on hemlock, and repeated blistering was ordered over the seat of the pain. All these measures failed to give relief. The first circumstance that made me look upon this case as one of spinal irritation, was the remarkable effect of posture. Moreover, there was not fever, nor wasting, in proportion to the intensity or the duration of the pain. Leeches were applied to the spine, and afterwards counter-irritation was kept up by tartar-emetic ointment. Two grains of sulphate of iron were at the same time ordered as a tonic, three times a day, and her bowels were kept open by Rufus's pill. Rest was of course enjoined for a few days. From that time up to the present, and several months have elapsed, there has not been a return of the pain in the slightest degree."

Our readers will form their own conclusions, as to the above cases, which are, however, very interesting, whatever theory may be employed for their explanation. For our own parts, we are much more disposed to attribute the phenomena to irritation of the ganglionic nerves, as distributed on the different viscera, than to spinal irritation.

We advise Dr. Corrigan to prosecute the inquiry, and to attend to the state of the digestive organs, and of the uterine system, in females, when he will probably find cause to suspect the cause, if not the seat of the disease, in other parts besides the spine.

XXV.

**ABERDEEN LUNATIC
HOSPITAL.**

**CASE OF INSANITY AND PARALYSIS, WITH
DISSECTION.**

PETER KEITH, ætatis 66, a carter, formerly in the navy, admitted 2d Sept. 1829.

About eighteen months ago he became gradually affected with insanity. Imagines himself to be Admiral Keith, and related to the Royal family and indulges in other delusions of a similar description. He has been occasionally violent, requiring restraint—was much addicted to the use of spirits and frequently drank to intoxication.

19th July, 1830. His delusions still exist, but without the least excitement. Can answer questions at times coherently, but seems stupid and greatly enfeebled in his intellect; and has a good deal of stammering and difficulty in articulating. For the last two months he has laboured under a partial loss of power of both lower extremities, which is reported to have come on gradually. Pulse very feeble. He cannot rise from bed, nor move the limbs, further than drawing them a little upwards with much exertion. No complaint of pain or uneasiness in any region of the body.

27th Jan. 1831. During his confinement to bed he retained his appetite to within a day or two of his decease, and suffered no pain, unless from occasional tympanitic distention of the abdomen, relieved by laxatives and aromatic tincture. His feet and legs became extensively œdematous at one time, but this also disappeared and did not recur. About a month or two before his

death he experienced the same partial loss of muscular power of the superior extremities. His pulse was generally feeble and bowels torpid. He was allowed a nourishing diet and tumbler of porter daily.

The symptoms having varied little from the date of the above report, he died this day.

Dissection 36 hours after death. The body was full and muscular and well covered with fat; his appetite having continued good to the last.

The calvarium being firmly adherent to the dura mater produced in its removal a laceration of the latter and allowed a considerable quantity of serous fluid to escape. There was a copious gelatinous deposit over the entire surface of the hemispheres between the pia mater and arachnoid, and forming a layer of considerable thickness more especially over the anterior lobes intermixed with some serous fluid.

The latter membrane was quite opaque and probably thickened. The substance of the brain as well as the membranes were by no means vascular.

There was situated between the middle and posterior lobes and immediately under the tunics a small irregular shaped cavity with vascular parietes, without distinct boundaries, containing the debris of softened and broken down cortical substance. The ramollissement extended into the medullary substance where it gradually disappeared in the surrounding healthy structure.

There was a most decided tendency to a general ramollissement of the cineritious matter generally, and of the central parts of the organ more especially.

The medullary substance, was comparatively free from this disorganizing process.

The ventricles were greatly distended with fluid. The lungs were quite sound, with the exception of a small mass of crude tubercles situated in the apex of the right superior lobe.

The parietes of the left ventricle of the heart were considerably hypertrophied, and those of the right were, on the other hand, much attenuated; in some parts entirely deprived of muscular fibre, and reduced

to a thin layer of adipose tissue. The liver was rather friable. Other viscera healthy.

The foregoing appears to be a pretty well marked case of what Georget terms "chronic muscular paralysis," and corresponding in its pathology (as proved by dissection) with the general description of this class of cases as given by the above author and noticed by Dr. Burrows in his ninth Commentary on Insanity.

The exciting causes were such as tended to induce repeated vascular excitement and such as would ultimately tend no doubt to terminate in a permanent chronic inflammatory action in some region or organ of the body.

The ramollissement may therefore, in this case at least, be fairly considered as the effects of vascular action.—J. M.

Lunatic Asylum, Aberdeen,
31st Jan. 1831.

N. B. It is to be hoped that the medical officers of lunatic hospitals will take advantage of their situations and furnish their professional brethren with records of the phenomena and pathology of insanity—records which are much wanted in this country.—Ed.

XXVI.

CASE OF EXTRA-UTERINE FÆTATION. By
M. F. Wagstaff, Esq.; with a Plate.

"On the 28th of April, 1829, I was desired to visit Mrs. RONDEAU, a married lady, about twenty-five years of age. I had delivered her of twins in her first accouchement, and of a single child in her second, which child, at this period, had not been weaned. No irregular circumstances occurred in either of those labours.

I found her reclined on a sofa, on the right side, her countenance very pallid, pulse greatly accelerated and small, much anxiety about the præcordia, lancinating pains in the abdomen, constant tenesmus both of rectum and bladder, with frequent vomiting.

Her mother gave the following statement of the previous occurrences:—

'After having eaten some cold lamb and potatoes, and drank a glass of porter, we walked together into Blackfriars'-road, (about half a mile,) when Mrs. RONDEAU suddenly complained of acute pain in the body, and requested a coach to be procured, in which she was conveyed home, where I gave my daughter some warm brandy and water immediately, supposing the pain to have arisen from indigestion, especially as it was attended with vomiting and relaxation of the bowels, and applied warm fomentation: this took place at two o'clock; at four, (as I found the pain increase,) I sent for you.'

The symptoms, as they appeared on my arrival, I have just described: they were very analagous to those of Cholera Morbus, but, as no inflammatory symptoms supervened, I prescribed anodyne and carminative medicines.

The pain continued during the whole evening; the abdomen enlarged, the pulse diminished, and, a little before twelve the same night, she expired.

The rapid progress and fatal termination of this case naturally excited a desire to be better acquainted with the cause of dissolution, which was not clearly shown by the SYMPTOMS; I, therefore, requested permission to inspect the body, which was readily granted by the relatives.

On the subsequent afternoon I went, accompanied by Mr. NORDELA, Curator of St. Thomas's Museum, and my Son, to make an examination, of which the following is the statement:—

SECTIO CADAVERIS.

On the appearance of the body, fourteen hours after death, the surface exhibited a completely blanched state, with fulness and tension of the abdomen.

On cutting through the abdominal muscles, the peritoneal sack was found to be distended with blood, (amounting, by weight, to four pounds fourteen ounces,) partially coagulated.

While this was being removed, cautiously, a fœtus was discovered in it of about seven or eight weeks' growth.

No laceration appearing in the uterus, attention was naturally directed to the appendages of that viscus, when the part where the fœtus had escaped was manifested by the ragged placenta, which hung from its situation in the left fallopian tube.

This left no doubt as to the nature of the case. The parts were then removed, and on a careful examination, it was ascertained that the fœtus had been contained in a sac formed by the left fallopian tube.

This sac was equal in size to a pigeon's egg, and occupied two-thirds of the length of the tube, nearest to the uterus.

The remaining portion of the tube was of its natural size, and its fimbriated margin free from obstruction.

A probe passed along its canal, stopped abruptly at the commencement of the dilatation, where the placenta protrudes; the distention of its sac increased to its centre, at which part it had given way, allowing the exit of the fœtus.

The rupture is as large as the point of a finger, and through it a detached portion of the placenta hung into the abdominal cavity.

The body of the uterus had enlarged to a size equal to that of the same viscus at a similar period of gestation; its walls were thickened and its cavity lined by recent deposit, evidently forming the decidua.*

A careful examination could not detect any rent in the peritoneal surface, nor was there the slightest mark of visceral disease.

* "This is a peculiar circumstance, worthy of investigation. How does it happen that the decidua should be forming in the uterus when the fallopian tube was imperforate beyond the fœtus? No communication whatever between it and the uterus. The uterus had taken on its action of pregnancy although empty, and a deposit to form, or forming a membrane.

Is this by the excitement of aura or by sympathy and consent of parts?"

REMARKS.

Extra-Uterine Fœtations are probably more frequent than we have been accustomed to imagine: little was known about them previous to the last century.

Mr. Turnbull, a surgeon of eminence, published a case of Extra-Uterine Fœtation, of the ventral kind, where pregnancy had existed fifteen months, and the child was (*post mortem*) removed by him from the abdomen. In this publication he refers as far back as 1683, to a case published in the Philosophical Transactions of that date, and gives a list of references to various authors, down to the days of Drs. Smellie, Lowther, and Garthshore, and so on to his own case, published in 1791.

He remarks, 'that, although it is generally understood that the uterus is essentially necessary for the purposes of conception, yet these different fœtations incline us to believe that it is not *absolutely so*, and that the principal advantages which that organ possesses over other living parts are derived from its situation and dilatable powers, and from its being possessed of muscular structure with an *external opening*. The former being admirably calculated for the purposes of growth and evolution, without any interference with the vital parts: and the latter for the prevention of hæmorrhages and the expulsion of the fœtus.'

The case I have just related seems calculated to corroborate this hypothesis. Does it not prove that the uterus is only a receptacle? though evidently the best suited for the purpose (being the natural one); yet, in this particular instance, the fœtus was nourished seven or eight weeks in its unnatural habitation—the fallopian tube, which, being impervious at the uterine extremity, could not permit the passage of the fœtus into the uterus.

A question here naturally arises, How was the fœtus nourished? It continued to enlarge until the texture of the fallopian tube gave way to over-distention.

It is evident that its nourishment was obtained from the vessels of the placenta, which received it from their numerous ramifica-

tions on the internal surface of the fallopian tube. Suppose, in the expulsion of the fœtus through the rupture in the fallopian tube, the funis umbilicalis had *not* been separated, but remained perfect, would it not have continued to supply the fœtus from the same source it had done before, namely, the internal surface of the fallopian tube; and might not its ramifications have been extended over neighbouring parts, and thereby produced a supply, augmenting with the enlargement and demand of the fœtus?

The generally received theory is, that the ovum is impregnated in the ovarium and becomes detached in consequence; the fimbriæ of the fallopian tube, having seized the ovarium, conveys the ovum, at the moment of its detachment, into the uterus, for nourishment; but, if they should miss their grasp,—or, having obtained it, should lose their hold, it must fall into the abdominal cavity, and thereby constitute a ventral case.

Adhesion readily takes place, from which ramifications are soon found to extend, and obtain a supply for the nourishment and growth of the fœtus.

In *this case*, however, it would appear that the impregnated ovum had been conveyed (*by the fimbrial grasp*) into the fallopian tube, but, meeting with obstruction there, it remained until its enlargement caused the tube to be ruptured: yet it had formed ramifications *within* the tube, from which it received its nourishment.

To the rupture of the funis, &c.—partial separation of the maternal portion of the placenta—are to be attributed the death of the patient, for nearly five pounds of blood were found loose in the cavity of the abdomen.

When we consider the smallness of the funis at that early period of pregnancy, we cannot reconcile that a sufficient quantity should have been so rapidly extravasated from the funis alone as to terminate fatally.

We have to regret that, had we even been acquainted with the symptoms, we were not likely to remedy the evil. Speculative theory might induce a bold surgeon to divide or tie the fallopian tube, but with what result is perfectly conjectural.

The case I have just described must for ever have remained in obscurity, except for a *post mortem* examination. I, therefore, congratulate the Profession on the advantages which the present age affords over former times to the pursuit of pathological inquiries.

The occurrences of peculiar phenomena,—deviations from the laws of the animal economy,—alteration in the structure and functions of any of the organs of the human body by disease,—are at all times peculiarly interesting to the contemplative Physiologist and Pathologist."

XXVII.

CHANGE OF AIR. PULO PINANG.

THE following remarkable instance of the salutary effects of CHANGE OF AIR, more especially of a change from the plain to the mountain, is taken from a work published in India by Dr. Ward, but not circulated or known in this country. The work will be noticed more at large in other parts of this Journal.

"An officer of rank, 32 years in India, had been for the last 14 years of his life, subject to repeated attacks of disease, originating in a morbid affection of the colon, a little above the caput cæcum, at one time producing distressing dysenteric symptoms, at another obstinate alvine obstruction. He had been subjected to various courses of medicine, and various methods of treatment, each only with temporary benefit. Five months after his arrival on this Island, he had a recurrence of the dysentery, which was relieved by a course of blue pill, Ipecacuan and Opium, with occasional doses of oil. He afterwards ascended the Great Hill, remained there two months, and returned comparatively well. Six months after, the disease again recurred, and then was evidently accompanied with deranged liver. These were palliated by a course of

mercurials, castor oil and emollient enemata, with occasional doses of hyosciamus.—On the evening of the 31st of January, 1830, he had a recurrence of the violent spasmodic pain in the region of the colon, he passed a wretched night, had repeated chills and flushes; felt great depression of spirits and total failure of strength. He had recourse to the measures above stated, with only slight benefit. On the 7th February, the following symptoms were noted. He was much emaciated; his cheeks sunk; his face and eyes sallow, and patches of yellow appeared about the lips and here and there upon the face. His eyes were dull; his forehead was warm, and the skin generally warmer than natural; his voice was faint and low, and conversation was difficult; pulse 120, irritable, compressible; tongue coated with an orange fur. His dejections were bilious, copious, offensive and mucous. Pain in the region of the colon, relieved by rubbing and hot bottles. A distressing dry cough came on four days ago; fulness and pain were present in the right hypochondriac region, and during the cough, he felt as if something was tearing the epigastrium. He had repeated flushings of the face, and occasional chills; a sense also of fluctuation as if water trickled down his back, and a cold clammy perspiration about the loins. His strength was exhausted; appetite gone, and there was increased thirst.—In consultation it was determined that the case was one of great emergency, that the symptoms threatened the occurrence of abscess of the liver superadded to the disease of the colon; and that the object of remedial measures was to support the system, until it could be acted upon by mercurials. Change of air, and that immediately, suggested itself, as the most likely means of effecting this; and as there was a difference at that time of 14° between the valley where he was living and the Great Hill, he was recommended to remove to the latter without the least delay. He accordingly ascended the mountain in a Ton-jon, (a sort of chair borne on mens' shoulders,) and reached the summit about 6½ a. m. refreshed at every step by the bracing breeze, and not in the least fatigued

by the removal. The hill air acted upon him like a charm. On the very first day, all the symptoms were relieved, his spirits gradually improved, and by means of a gentle course of mercurial medicines, until the mouth became slightly affected, but not to salivation, with a seton in the side, and mild nutrient diet, his general health was greatly restored; his strength had much increased, and the state of his stomach and bowels was also improved, tho' he was still subject to occasional attacks of spasm and obstruction of the colon. On the 1st of June, he was almost as completely re-established in health as he could have been by a trip to England, tho' of course the improvement cannot be expected to be permanent; and return to a hot climate will most likely be followed by a relapse.

I am inclined to attribute the successful issue of this case, entirely to the beneficial operation of the mountain air, as had he continued in the Valley, where the heat was then oppressively great, the thermometer being at 83° in the middle of the day, I have no doubt that he would have sunk from exhaustion."

The salutary effects of CHANGE OF AIR are supposed to be well known—but they are very imperfectly known, comparatively speaking. If, indeed, we reflect, for a moment, on the difference that must necessarily exist between the air of a city or a valley, and that of a mountain or open country, we must be convinced of the importance of this difference in respect to health. It is not only probable but certain, that all or most of the deleterious agents emanating from the earth on which we live, hover in the lower strata of air, and consequently become concentrated in the atmosphere of cities and valleys. As we ascend the mountains, we get beyond the reach of these agents; and on the open plains they are greatly diluted, if not dissipated, by the breezes which sweep uninterruptedly along the surface of the soil. But independently of these considerations, there is something so exhilarating and salutary in a constant change of the fluid by which "we live and move and have our being," that it is won-

derful the wealthy citizens of these islands do not more frequently avail themselves of such a powerful preservative of life and health, than they now do! It is rather unfortunate that the mountains of Wales and Scotland are so far removed from Modern Babylon; but still the distance is trifling, when compared with the stock of health which a Summer or Autumnal tour confers on those who breathe the pure air of these places. We could illustrate this subject by many striking examples; but must defer the illustration for the present.

XXVIII.

RETENTION OF URINE FROM ENLARGEMENT OF THE THIRD LOBE OF THE PROSTATE, TREATED BY ITS PERFORATION. By R. STAFFORD, Esq.

IN the analysis of Mr. Brodie's lectures on calculous diseases, published in the present number of this Journal, our readers will perceive that Mr. Brodie has perforated the third lobe of the prostate gland, for retention of urine occasioned by its enlargement. The eminent surgeon to whom we allude, recommends that, under certain circumstances, this operation should be performed. Mr. Stafford, whose little work on strictures has been formerly favourably noticed, has published two cases in which he performed this operation with success. As facts on such occasions are particularly valuable, we shall give an account of Mr. Stafford's cases.

Case 1. A gentleman, about 50 years of age, applied to Mr. Stafford with an impermeable stricture of the urethra, and slight enlargement of the prostate gland. It usually took him from two to four hours to empty the bladder, and he was subject to occasional attacks of retention of urine. Mr. Stafford gradually divided the stricture by means of the lancetted stilette, and in about *four months* the division was completed.

"After having permeated so great an ex-

tent of the urethra, the patient was attacked by retention of urine, which could not, however, be called *complete*, as he was able to void, though with great straining and extreme pain, about a teaspoonful of urine during the day. The bladder now became considerably distended; the urine was extremely fetid; and at the bottom of the vessel which contained it, there was deposited a muco-purulent sediment tinged with blood. Having completely cleared the urethra down to the prostate gland, I examined, *per anum*, the state of this organ, and found it to be rather more enlarged than on the first examination, and that on pressure with the finger it was extremely tender. The pulse at this time was hard and at 90; the tongue very dry and furred; the skin hot; and the countenance full of distress and anxiety.

He was ordered, (Nov. 25 and 26,) to lose blood from the perineum by leeches and cupping, to make use of the warm bath, to foment, to take purgatives and opiates, and to use the latter in injections and suppositories. All these means failed to produce any effect, and the bladder was becoming so distended that there was reason to fear that it might burst, or urinary coma might come on, unless it was punctured; or unless the operation, which shall presently be described was performed. At this crisis, therefore, I requested to have another opinion, and my friend, Mr. Lawrence, surgeon to St. Bartholomew's Hospital, was called. The catheter could at this time be passed to the length of $8\frac{1}{2}$ inches; and on examining its point, *per anum*, it appeared to have entered into the anterior part, or mouth of the prostate, and there to be obstructed. In this state of the case Mr. L. concurred with me in thinking it would be best to cut on through the obstruction, which appeared to be an enlargement of the third lobe of the prostate, with the lancetted stilette, in as near a line as possible in the natural channel into the bladder. Having introduced the instrument, I thrust forth the lancet at its point, and cautiously perforated the obstruction, until I advanced nearly two inches farther. The stilette now was eleven inches,

but no urine flowed. It was therefore withdrawn, and a catheter was passed to the same point, but it would not go farther, until upon examination with the finger *per anum*, in order to discover its exact situation, it slipped into the bladder, and upwards of three pints of fetid urine were evacuated. In performing the operation the handle of the instrument was depressed as much as possible; and when the lancet which had made the cut had receded into its sheath, the blunt point was thrust in with the greatest caution until it had reached the extremity of the incision. The perforation was accomplished by protruding the lancet three times. The operation produced but little pain, and the bleeding was so trifling, that it could only be perceived by examining the point of the instrument. A No. 9 silver catheter was left in the bladder and secured, and the patient remained in bed. An opiate draught was administered. In the evening the pulse was reduced to 80—the skin had become moist, and the countenance had in a great measure lost the expression of anxiety.”

We fancy that neither Mr. Stafford nor any body else will see many cases of retention so *complete*, that not a teaspoonful of urine is passed during the day. We cannot avoid remarking, en passant, that four months trial of the lancetted stilette, and retention of urine at the end of that time is no very great eulogium on the lancetted practice. For our own parts we believe that very few cases of stricture, very few indeed, but would yield in that time to the common means of dilatation, judiciously devised and dexterously executed. But this by the way.

We need not pursue the after details nor the after treatment. For a fortnight a gum catheter was kept in the bladder, and after this period it was withdrawn. In about three weeks after the operation he began to make water of his own accord, and in less than six, he could completely empty the bladder. In January he returned into the country, and Mr. Stafford has since heard that he can void his urine as well as ever he did.

Case 2. A gentleman, aged 49, had laboured under symptoms of stricture for thirty years, with additional difficulty in passing his urine for five. The urine was alkaline, the bladder not completely evacuated. The natural orifice of the urethra was closed, but immediately beneath it was an opening connected with the canal. Half an inch anterior to the bulb was an impermeable stricture, and anterior to this a false passage which readily bled. The body of the prostate was slightly enlarged.

“After enlarging the orifice to its natural size, I gradually divided the diseased portion of the urethra, which extended about an inch and a half; and though in this case, as in the former, I proceeded with the greatest caution, for the reasons I have already mentioned, the operation was accomplished in four or five weeks. I found when I arrived at the prostate, that the instrument was still obstructed, and would not enter the bladder. The patient could make water in a large stream; but he had still the same difficulty in expelling it, and the bladder never emptied itself. For these reasons, and as the catheter could be passed rather more than eight inches, and its point could be felt to have entered the prostatic portion of the urethra, I concluded this obstruction could be no other than an enlargement of the third or middle lobe; I therefore, as the symptoms were not very urgent, cautiously made three or four punctures in it. The patient felt some pain, and expressed himself as if something had been incised at the neck of the bladder. No bleeding ensued; and, indeed, so little did he suffer from it, that he felt no greater uneasiness than before the operation. In three days more I made the same number of punctures, which gave rise to exactly the same sensations at the time, but nothing more was felt. After the same interval of time, I again punctured the part, and on my fourth visit, my patient expressed himself considerably relieved. He could make water better, and he thought the bladder had gained more power. To ascertain the state of the urethra, I now in-

roduced a steel sound, which passed easily into the bladder. On drawing off the urine afterwards, I discovered that the bladder could expel only half its contents. A catheter, therefore, was introduced night and morning, gradually increasing its size, until this organ completely regained its power. In about six weeks or two months the urinary organs of this patient were restored to their healthy function."

We think that, from the foregoing cases, as well as from those which are mentioned by Mr. Brodie, the puncture of an enlarged third lobe of the prostate, must be looked on under certain circumstances as a safe, if not an advisable operation. With respect to the lancetted stilette it would require much time, and many strong facts to enable us to pronounce a decided opinion on its advantages over the more ordinary means of dilatation for stricture. Of this we are certain, that Mr. Stafford employs it in many cases which might, and by other surgeons would, be successfully managed without it.

XXIX.

EDINBURGH SURGICAL HOSPITAL.

1. REUNION OF FRACTURED BONES.*

Mr. SYME continues to report from this his own hospital. We have on several occasions had occasion to praise and to blame these reports; to praise them as evincing assiduity and industry, to blame them for a spirit which, if not egotistical, might fairly give a colour to such an imputation. We know that it is the custom of most hospitals supported by voluntary contributions, to publish an annual or semi-annual report, setting forth their advantages to the community, their lists of patients relieved and

cured. This is looked on with charitable feelings, and if a slight disposition to embellishment is noticed, it is not visited by any severity of criticism. But such a taint in a document intended for the profession, as a medical report in a medical journal undoubtedly must be, is not calculated to enhance nor even give their proper degree of value to its merits. We do not affirm that Mr. Syme's reports are characterized by this failing; we merely hint, that a superficial reader might be tempted to think them so. When Mr. S. informs us that, ever since the institution of the hospital, "it has been greatly resorted to for relief in cases of fracture, both by in and out patients," we cannot doubt that, when its merits become still more generally known than they now are, persons will voluntarily submit to fractions in order to partake of them. In this town individuals with broken legs are usually carried to the nearest hospital, and comparatively seldom resort of themselves to any one in particular. But probably no Metropolitan institution has acquired the deserved celebrity of Mr. Syme's. In the Edinburgh hospital, then, there have been no less than 17 cases of fracture during the last month, "when, it is true such accidents most abound, from the combined effects of intemperance and frosty weather." Of this long list two were fractures of the clavicle, three of the humerus, and two of the metatarsus and metacarpus. The remainder were fractures of the lower jaw, femur, patella, and tibia and fibula. We conceive that there are few of the larger London hospitals but would furnish as great a list in a fortnight or even in a week.

It is not our intention to notice this report at any length. Our readers are aware that many different accounts of the mode of re-union of broken bones have at various times been given to the world. The experiments of Dupuytren and Breschet, and of Mr. Howship have thrown much light upon the process, and established the important part which is played by the periosteum and soft parts. The following cases are valuable as bringing from human dissections proofs of the correctness of deductions from experiments on the lower animals.

* Ed. Med. and Surg. Journ. No. 107.

Case 1. A woman, æt. 52, was admitted with fracture of the right thigh-bone in its lower third. Pasteboard splints and the long splint of Dessault were applied, and she seemed to be doing well till the 11th day, when symptoms of fever came on, and on the 14th day she died apparently with œdema of the glottis.

"On dissection, the fracture was found to extend obliquely from near the middle of the bone down to the external condyle. The muscular fibres and cellular substance in the neighbourhood of the injury were altered in colour as well as consistence, by the effusion of gelatinous matter into their texture. A kind of bag or capsule was thus formed, embracing the whole extent of broken surfaces, and containing two or three ounces of fluid blood. The parietes composing it were in some parts connected to the very edge of the bone, but in others they became adherent to it at a distance of an inch or more from the extremity, leaving a space to this extent uncovered, and apparently denuded of periosteum. When carefully examined, this exposed portion was ascertained to be covered by a thin layer of gelatinous substance, which did not possess the toughness or other characters of a membrane; and the respective surfaces of the bone had a covering of the same kind. The medullary membrane was very vascular, and more distended than usual.

In examining the structure of this bag, I endeavoured to ascertain which of the natural tissues entered into its formation, and in what parts of it, if any, ossification had commenced. On tracing the periosteum from the sound bone, I found that where the bag adhered, that membrane became thick, and evidently continuous with its walls. It seemed probable that where the membrane had been stripped off the bone, as already mentioned, it might assist to form, in some small part, the sac in question; the great extent of which, however, was evidently constituted by the neighbouring tissues, whatever they happened to be, muscle, tendon, fat, or cellular substance, all being reduced to the same ap-

pearance internally, by vascularity of the surface, and the same consistence, by the interstitial effusion of organizable matter.

On introducing my finger into the bag, so as to feel if there were any indications of ossification, I perceived some small grains or specks of bone, which, when minutely examined, presented a stellated appearance, and were ascertained to lie in the substance of the capsular membrane. When examined in the same way near its connexion with the bone, it was found to contain much larger masses possessing osseous firmness; in order to ascertain the precise seat and origin of which, I carefully dissected the membrane where they existed, and then found that they lay completely imbedded within it, having a covering from it on both sides; also that they did not adhere to the bone, being separated from it by a thin layer of the membrane, so as to admit of a slight degree of motion; but at these parts, the shaft itself had begun to shoot out a growth of new bone."

Case 2. An old woman, æt. 70, was admitted with compound fracture of the left leg, close to the ankle. In the course of a month the cure seemed to be complete, and ten days after that the woman was dismissed with a perfectly straight limb. In the course of ten days from this time she died, and Mr. Syme was enabled to examine the bones."

"When divested of their muscular coverings, they presented an appearance hardly differing from that naturally belonging to them. All the pieces into which they had been broken were firmly united to each other and to their shafts, and were covered with a periosteum of usual consistence. On closer examination, the interstices between these portions were found to be occupied by a soft bloody gelatinous substance, to ascertain the precise extent of which, the preparation was macerated. When all the interstitial matter had been thus separated, it was seen that the united fragments of the tibia, which were thirteen in number, constituted merely a skeleton, so to speak, of the cylinder, and that the central

cavity remained entirely vacant. On examining the internal surface of this imperfect shell, it was evident that an ossific process had been going on over the whole of it, and I have no doubt, that, if the patient had lived some months longer, the bones would have become completely solid. The fibula presented similar appearances, though on a smaller scale, and the process of reunion was more nearly perfected. There is in my possession the preparation of a thigh-bone which was fractured through the neck and trochanters, and was treated by my friend Mr. George White. The patient died two months after the accident from some other cause. It now appears, the bone having been macerated, that all the broken portions are firmly united together at the edges, but that all their internal surfaces remain perfectly distinct and separate. The appearance, in short, is very nearly the same, and, I believe, would also have terminated in compact ossification, if the necessary time had been afforded."

II. URINARY CALCULUS.

The following fact may be useful to others; it appears to have been instructive to Mr. Syme. M. S. extracted two large stones from a sac formed by dilatation of the membranous part of the urethra. Some uneasiness continued after the operation, which was referred to a stricture that had previously existed, but was not relieved as the stricture was dilated. Mr. S. now passed an instrument into the bladder, and found a stone in it. The parents would not permit him to remove it, but Mr. Syme has since heard that the calculus has been extracted by another surgeon. In short, by this little lapsus Mr. Syme lost his patient when he found the stone. Other surgeons may take the hint.

In similar cases Mr. Syme recommends us to divide the prostate, so as to admit the finger, and to make a complete scrutiny into every corner of the bladder. Thus a boy, *æt.* 3, was admitted with symptoms of stone. On introducing a sound, a calculus was felt lying in the prostatic part of the urethra, and it was removed. Mr. S. di-

lated the neck of the bladder with a bistoury, and introduced his finger so as to ascertain positively that there was no concretion in the bladder. The boy was dismissed cured in twelve days.

Mr. Syme relates a curious case in which he performed the operation of lithotomy. The man had suffered excessively from the symptoms of stone for nearly three years, and he was accustomed to take as much as sixty-two grains of opium for his daily dose. Mr. S. performed the operation, and for the first six days the patient did well, taking from six to eight hundred drops of laudanum daily. On the sixth day, however, it was thought better to begin to diminish the quantity of laudanum, and in the evening he complained of exhaustion and general uneasiness, the pulse having risen to 80, the tongue dry. Laudanum was prescribed, and next day he was rather better, but had a little mucous rattle in the chest. A little antimonial wine was added to the laudanum, and a blister applied. During the next three days he became progressively worse, another blister was applied, and on the third day he complained of violent pain in the left lumbar region. This continued till his death, on the following day. On dissection the lungs were found gorged with mucus; the descending colon was found extremely contracted, and these were all the morbid appearances. Mr. S. can say little explanatory of the case; neither can we.

In a case of retention of urine from a calculus at the bulb of the urethra, which could be felt through the integuments a little behind the scrotum, Mr. Syme adopted the following measures. He first dilated the passage after the manner of the Egyptians, that is, by blowing into it with a tube, having previously, to facilitate the passage of the stone, introduced a little oil. Then making pressure behind the calculus, he brought it forward to the anterior part of the scrotum, and, not being able to advance it further, he cut down upon it in that situation, and removed it. The boy was well in two or three days. In this patient Mr. Syme would not operate while the stone was

posterior to the scrotum, "because the parts are thick, and from their laxity favourable to the effusion both of blood and urine." Now it is a singular circumstance that Mr. Brodie has come to a diametrically opposite conclusion. Having removed several calculi by cutting into the urethra behind the scrotum with success, he was induced in one instance to bring the stone by the urethra-forceps anterior to the scrotum, and cut down upon it in that situation. The urine afterwards gravitated into the scrotum, troublesome abscesses succeeded, and from that time Mr. Brodie has always preferred cutting on the calculus behind the scrotum. By the way, we should imagine that a pair of urethra-forceps would have been much superior to the clumsy, albeit Egyptian, method of blowing up the canal.

III. CANCEROUS ULCERATIONS OF THE FACE.

Ulcers of the lip are sometimes prevented healing merely by the motion of the part, or the indirect irritation produced by disorder of the digestive organs, when pressure and a sulphate of zinc or black-wash is sufficient for the cure. Thus a farmer applied to Mr. Syme with a small superficial ulcer on the lip, nearly the size of a sixpence, which had resisted all the means already employed. Under the application of a piece of lint dipped in black wash, covered by a piece of oil-silk, and supported by a bandage to prevent motion of the lip, the sore was diminished to half its former size in two or three days, and the farmer went into the country.

For cancerous affections of the tongue Mr. S. recommends the knife in preference to the ligature. Having removed a large ulcerated tumour of the tongue, nearly half of which was engaged in the disease, the wound healed, and all seemed doing well. Not long afterwards the complaint began to return, affecting not only the tongue but the floor of the mouth.

XXX.

MERCURY AND DEPLETION IN THE FEVERS OF INDIA.

In a very interesting and highly practical work on the climate, diseases, and topography of Pulo Penang, by Dr. Ward and Mr. Grant, we find the following statement, which shews that so late as the year 1830, the efficacy of the mercurial and depletive practice in Indian diseases, has lost nothing of its influence, notwithstanding the lachrymose ululations of certain old women in this country.

"In the European Patient depletion to a large extent is positively called for to save life: it therefore is a necessary evil. But in the native from his habits of body assimilating him more to these climes, the blood, which in him is always thinner than it is in the European, and which appears to be not so easily disorganized by noxious inhalations, can flow through all the extreme vessels without producing dangerous congestion, and that to such an extent only as can be removed without depletion, by means of antimonials, mercurials, and counter-irritants.

Mercury. In a brief way, touching upon the wonderful influence that Mercury (in whatever form administered so as to affect the system) exerts in putting an immediate check to this, as well as to all other acute intertropical maladies, I was induced, by perusing the works of that enlightened and elegant writer, Dr. James Johnson, who, it must be allowed, is the progenitor of the present active and extended system pursued in the treatment of tropical diseases, to be one of the happy followers of his doctrine. And it is to be hoped that all who follow his precepts will have equal gratification and success therefrom. In the first place, then, this medicine, whenever it produces a healthy action in the glands, more particularly in the Liver, subdues this fever; but extended practice must point out, that, in acute diseases, this rarely happens till pyæmia is established—when the petroleum or tarlike dejections indicate that the gall-bladder has

gorged forth its long inspissated and diseased tenant. There is little further use for its influence excepting to keep up a gentle action in the glands. The case of Lieut. C. is the only one in which I have seen life saved, in this fever, without its being through the medium of mercury carried to the length of pyalism; and I look upon it to be a matter of the most essential importance to the welfare of our fellow sojourners in India, that this fact should be particularly enquired into. Facts are stubborn things; and I uphold my opinions on them alone. Some medical men suppose its influence is not required. I will conclude my remarks upon it with the words of that celebrated practitioner Dr. Chisholm on the administration of it in the malignant pestilential fever, p. 221. 'Are we then from vain and unfounded apprehensions of this kind, from reasoning drawn from false premises, or from the suggestions of uninformed or prejudiced minds, to yield up the result of our own frequently reiterated experience, to relinquish the best aid we can bring to the relief and support of our fellow creatures suffering under so direful a malady? forbid it humanity! forbid it truth! forbid it heaven!'

From the foregoing extract it will be seen that certain anathemas thundered forth against mercury in the dangerous diseases of India, are but little regarded by those practitioners who can see with their own eyes, and are capable of drawing useful deductions from solid facts.

XXXI.

ON THE INFLUENCE OF SOME OF THE DISEASES OF THE BODY ON THE MIND. By Sir HENRY HALFORD, Bt. M.D. &c. &c.

WE did not receive the little volume in which the above interesting paper is contained,* until after the Review department of this number was closed. We can only therefore notice one or two of the subjects

in our Periscope of the present quarter. This is of less consequence, as the essays of the eminent President are quite unconnected by any link, except the place where they were read. They will therefore form separate articles of analysis, without any injury to the volume in which they are recorded. We have selected the fourth essay in the work for our present notice, because one of the most eloquent, and certainly not the least interesting, in the whole collection.

Sir George Baker, among others, has exercised his powers on the influence of some of the passions of the mind on the functions of the body. The object of Sir Henry is to furnish a counterpart of that picture—namely, the effects of bodily diseases on the mind. These effects are more obvious to the physician than to any other class of society—and they vary according to the different parts of the body in which the diseases or disorders have their seats.

'For what can be more in contrast with each other, in their influence upon the mental powers, than an indigestion and a slight inflammation of the brain? A disorder in the digestive organs lays a weight upon the mind.

'Corpus onustum
Hesternis vitis animum quoque pręgravat una,
Atque affligit humo divinę particulam aurę.'

Horace.

It renders a man irresolute, infirm of purpose, and both indisposed and unequal to enterprise of any kind. Whilst a slight inflammation of the brain gives a sharpness* to his faculties, inspires spirit, quickens ambition, and leads him to believe, like Hotspur, that he can—

'Pluck bright honour from the pale-faced moon.'

Perhaps if *excitement* were substituted for *inflammation* in the foregoing eloquent passage, it would be more generally applicable. In maniacs, for example, where these bright

at the Royal College of Physicians. By Sir Henry Halford, Svo. pp. 192, 1831.

* 'Multa enim e corpore existunt, quę acuant mentem, multa quę obtundant.'—Cic. Tusc. Lib. i. 33.

* Essays and Orations read and delivered

visions of the fancy go on for years and after all, leave no traces of their existence in the brain, we cannot but conclude that it is irritation or excitement rather than inflammation of the sensorium which keeps up the vivid trains of thought.

Of apoplexy our learned author professes to say little. Of the paralyses, the sequels of apoplexy, he presents us with the following sentiment.

"But the sequel of apoplexy is **PALSY**; and when that has supervened, and the frame has been dismembered, then, indeed, happy is the patient whose mind shall have been disciplined when in health, and whose moral habits shall have been well regulated by reason and by good principles before he was taken ill; for, otherwise, as all the passions are let loose by the malady, (as is the case in many instances, at least, in this disease,) whilst the controlling power is enfeebled, an irritability succeeds which makes life intolerable to the sick man himself, and to all around him. The tenderest offices, administered with the most prudent attention and care, fail to conciliate; and he indulges his anger, and dissolves into tears alternately, alike without reason, until at length another apoplectic blow deprives him of life.

By this distemper the great talents of Marlborough were confounded in the latter years of his life, and his powerful mind impaired. By this also was extinguished the spirit of the celebrated Dean Swift:—

'From Marlbro's eyes the tears of dotage flow,
And Swift expires a driveller and a show.' "

In respect to epilepsy, it is a merciful dispensation of Providence that, however frightful the attack may appear to others, the victim himself is unconscious of the seizure. But it is too well known that repeated fits debilitate the mental faculties, and even lead to fatuity. Sir Henry is of opinion that Julius Cæsar's epilepsy was symptomatic of some derangement in the alimentary canal; as it did not seem to impair his faculties.

The next contrast which our author draws is that which the young hectic female pre-

sents as compared with that disordered state which sometimes occurs after the cessation of the catamenia.

"The subject of such an indisposition has probably grown more corpulent; she sits in an indolent posture, looks gloomy, hardly speaks at all, and we learn from her attendants that she lives under a constant apprehension that some fancied evil is about to befall her. She is suspicious, undecided in all her movements, and manifests symptoms which *differ in degree only* from melancholy mania.

The pathologist will look, perhaps, to the different state of the circulation of the blood in these two females for the difference of their animal spirits; and will conjecture that the blood was more oxygenated in the younger one, by a more rapid circulation through the lungs, whereby the brain was unusually stimulated; whereas, in the elder person, there was a stagnation in the liver, giving rise to hypochondriasm, in consequence of the more gorged, plethoric state of the ventral and hæmorrhoidal veins determined to that organ, since the sexual evacuation had ceased."

The agonizing paroxysms of suffocation occasioned by organic diseases of the heart are next sketched in the energetic language of the author. In the intervals between the attacks (of angina pectoris) the mind is often cheerful and buoyant, and the patient indulges sanguine hopes.

"Hence, the subjects of such painful disorders are commonly less dejected than those who suffer only from a derangement of the stomach. Whether it be that Providence has specially allotted a certain alacrity of spirit and cheer of mind to the victims of this disease of the main-spring of life, as an alleviation of their sufferings, or whether this may be referred to the general principle which Dr. Paley has stated with respect to pain, 'that its pauses and intermissions become positive pleasures; that it has the power of shedding a satisfaction over the intervals of ease which few enjoyments exceed.' This amiable philosopher adds, that 'the spirits of sick men do not sink in

proportion to the acuteness of their sufferings, but rather appear to be roused and supported, not by pain, but by the high degree of comfort which they derive from its cessation, or even its subsidency, whenever that occurs, and which they taste with a relish that diffuses some portion of mental complacency over the whole of that mixed state of sensations in which disease has placed them.”

The foregoing observations evidently apply only to what has been vaguely termed sternalgia, angina pectoris, syncope anginosa, and other learned names. In organic affections of the heart generally, we have found a very considerable depression of spirits prevail—often to a most distressing extent. And no wonder! For in such diseases, the circulation is never entirely free from embarrassment, and the respiratory function, on which life so imminently depends, is seldom free.

“That pain alone does not affect the faculties, is manifested in that most excruciating of all disorders, *tic douloureux*. Nay, where pain is conjoined with other symptoms, calculated to subdue the stoutest heart, as in the progress of a fatal iliac passion, it does no violence to the senses. In this dreadful disease, in which hiccup, unquenchable thirst, incessant vomiting, unspeakable inquietude, prevail for six or seven successive days and nights before the scene of misery be closed, yet does the patient maintain his mental powers; and, spite of the constant disappointment of his expectations of being relieved by the operation of his medicine, does he exercise his judgment and keep up his hopes.”

Sir Henry adverts to the unmanly, or at least unchristian practice of the ancient Romans, who considered themselves at liberty to terminate their own existence when their diseases were painful, or their physicians pronounced them to be incurable.

“Their creed admitted an independent exercise of their free-will and pleasure in the disposal of their lives:—

Of the great number which it has been our author's painful duty to attend in the last hours of their lives, he has sometimes felt surprised that so few have appeared reluctant to go to the “undiscovered country from whose bourne no traveller returns.” Many, he thinks, may have manifested this willingness to die, from an impatience of suffering, or from the passive indifference which is sometimes the result of debility and bodily exhaustion; but, “he has seen those who have arrived at a fearless contemplation of the future, from faith in the doctrine which our religion teaches.” Some indeed have clung to life anxiously—painfully; but they did not appear to be so much influenced by a love of life, for its own sake, as by the distressing prospect of leaving children, dependent on them, to the mercy of the world.

The following piece of medical ethics, from a man of such experience and tact as Sir Henry Halford, is deserving of record in the author's own words.

“And here you will forgive me, perhaps, if I presume to state what appears to me to be the conduct proper to be observed by a physician in withholding, or making his patient acquainted with, his opinion of the probable issue of a malady manifesting mortal symptoms. I own I think it my first duty to protract his life by all practicable means, and to interpose myself between him and every thing which may possibly aggravate his danger. And unless I shall have found him averse from doing what was necessary in aid of my remedies, from a want of proper sense of his perilous situation, I forbear to step out of the bounds of my province in order to offer any advice which is not necessary to promote his cure. At the same time, I think it indispensable to let his friends know the danger of his case the instant I discover it. An arrangement of his worldly affairs, in which the comfort or unhappiness of those who are to come after him is involved, may be necessary; and a suggestion of his danger, by which the accomplishment of this object is to be obtained, naturally induces a contemplation of his more important spiritual

*Ipse Deus, simul atque volam me solvet—
Moriar. Mors ultima linea rerum est.*”

concerns, a careful review of his past life, and such sincere sorrow and contrition for what he has done amiss, as justifies our humble hope of his pardon and acceptance hereafter. If friends can do their good offices at a proper time, and under the suggestions of the physician, it is far better that they should undertake them than the medical adviser. They do so without destroying his hopes, for the patient will still believe that he has an appeal to his physician beyond their fears; whereas, if the physician lay open his danger to him, however delicately he may do this, he runs a risk of appearing to pronounce a sentence of condemnation to death, against which there is no appeal—*no hope*; and, *on that account*, what is most awful to think of, perhaps the sick man's repentance may be less available.

But friends may be absent, and nobody near the patient in his extremity, of sufficient influence or pretension to inform him of his dangerous condition. And surely it is lamentable to think that any human being should leave the world unprepared to meet his Creator and Judge, 'with all his crimes broad blown!' Rather than so, I have departed from my strict professional duty, and have done that which I would have done by myself, and have apprized my patient of the great change he was about to undergo."

These considerations bring our author naturally to a defence of his conduct in cautiously wording the bulletins of his late Majesty's last illness—a vindication which is unnecessary, as far as the medical profession is concerned, and to which we did ample justice in this journal, at the time when the melancholy event took place. The following particulars, however, are deserving of notice, and with them we shall conclude this article.

"In the case of his late Majesty, the King's Government and the Royal Family were apprized, as early as the 27th of April,* (I hold in my hand the original letters which gave the information to the Prime

Minister,) that his Majesty's disease was seated in his heart, and that an effusion of water into the chest was soon to be expected. It was, not, however, until the latter end of May—when his Majesty was so discouraged by repeated attacks in the embarrassment in his breathing, as to desire me to explain to him the nature of his complaint, and to give him my candid opinion of its probable termination—that the opportunity occurred of acknowledging to his Majesty the extent of my fears for his safety.

This communication was not necessary to suggest to the King the propriety of religious offices, for his Majesty had used them daily. But it determined him, perhaps, to appoint an early day to receive the Sacrament. He did receive it with every appearance of the most fervent piety and devotion, and acknowledged to me repeatedly afterwards, that it had given him great consolation—true comfort.

After this, when 'he had set his house in order,' I thought myself at liberty to interpret every new symptom as it arose in as favourable a light as I could, for his Majesty's satisfaction; and we were enabled thereby to rally his spirits in the intervals of his frightful attacks, to maintain his confidence in his medical resources, and to spare him the pain of contemplating approaching death, until a few minutes before his Majesty expired.

Lord Bacon,* one of the wisest men who have lived, encourages physicians to make it a part of their art to smooth the bed of death, and to render the departure from life easy, placid, and gentle.

This doctrine, so accordant with the best principles of our nature, commended not only by the wisdom of this consummate philosopher, but also by the experience of one of the most judicious and conscientious physicians of modern times, the late Dr. Heberden, was practised with such happy success in the case of our late lamented sovereign, that at the close of his painful disease

* "His Majesty died on the 25th of June."

* "See chap. ii., lib. 4, 'De Augmentis Scientiarum.'"

'non tam mori videretur (as was said of a Roman Emperor) quam dulci et alto sopore excipi.' "

XXXII.

ON POISONED CONFECTIONARY. By W. B. O'SHAUGHNESSY, M.D.

WE fear that death is not confined to the POT alone; but that PASTRY performs its part in the tragedy of life. In France, where confectionary, sugar-plums, bonbons, and ten thousand species of sweetmeats, or rather beautified poisons, are still more in demand than here, the detection of deleterious matters in their colourings became an object of great importance, and the distinguished CHEVALLIER undertook the analytical research. This chemist detected in the Parisian confectionary various noxious substances, such as arsenic, copper, lead, mercury, gamboge, &c. and his report induced the French Government, who take cognizance of what enters as well as what issues from the mouth, sent forth an ordonnance prohibitory of pastry-cook poisoning in the good city of Paris, as well as elsewhere in the great nation. Dr. O'Shaughnessy, whose attention had, for some time previously, been directed to the subject, sat about investigating the colouring materials of the London pastry, and has recently brought the result of his researches before the public through the pages of the *Lancet*. From a separate paper with which we have been favoured by the author, we shall make a few extracts.

"On the subsequent day to that on which I perused the article just alluded to, I purchased, in company with my friend Dr. Green, at several shops, different specimens of coloured confectionary, and of colourless articles wrapped in stained paper. Of the coloured articles, the greater number (class 1) were sold expressly for eating, some (class 2) cast into small figures of cards, &c.,

were apparently rather intended for ornament, but were sold without restriction; and, lastly, some (class 3) were expressly designed for ornament alone. Of the first class I examined about thirty different kinds, and found the *reds* tinted as follows:

Ten Specimens of Red Comfits, &c.

- 1 Minium, or red oxide of lead.
- 2 Red sulphuret of mercury (vermilion.)
- 1 Mixture of both the former.
- 1 Of a yellowish or orange tint, chromate of lead, and a vegetable lake of lime.
- 2 Cochineal alone.
- 1 Cochineal, with a trace of *vermilion*.
- 2 Vegetable lakes of alumina and lime.

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10

It is seen here, that of the ten specimens of comfits sold for eating expressly, six contained mineral poison; all these specimens, with one exception, were only coloured externally.

Of the *yellows*, class 1, seven specimens of different forms and tints. 4. *Gamboge*, coloured externally; 1. Coloured throughout a vegetable lake of lime; 1. Coloured throughout, oxide of lead, and traces of antimony, or Naples yellow. Six of the seven consequently contained deleterious substances.

Of the *greens*, class 1, several specimens, all were coloured by Prussian blue, and a vegetable yellow lake of alumina mixed with the sulphate of lime, except one specimen, of which I had only two comfits, and which gave me a mixture of copper and lime.

The *blues*, class 1, were chiefly Prussian blue, and contained no hurtful compound.

In the second class, or those apparently intended for ornament, but sold without restriction, and formed in all sorts of fantastic shapes, of eight forms of yellow, three contained chromate of lead; one Naples yellow; one massicot or yellow lead, and three vegetable lakes of alumina and lime. All these were coloured throughout, and contained moreover sugar, and the sulphate of lime or plaster of Paris.

The *reds* in this class were, of six specimens, three vegetable lakes of alumina or lime, one chromate of lead, with a red vegetable lake, two red lead,

The *greens* and *blues* were composed as I described in class 1.

In the *third* class the composition was precisely the same, and the proportion little different from class 2.

The papers were next examined, especially those used for enveloping the sugar drops called 'kisses.' Without exception the reds were coloured by the RED SULPHURET of MERCURY, the yellows by the CHROMATE of LEAD, and many of the greens by VERDEGRIS, or the carbonate of copper.*

With respect to the quantities of the poisonous substances, I had not leisure to submit the various products to the tedious process of delicate weighing. Moreover, it appears to me to be altogether unnecessary to take the trouble, as the mere presence of the minutest possible quantity of any such substance should not be allowed. In this opinion I entirely coincide with MM. Chevalier and Andral. It is perfectly unnecessary for me to occupy the pages of this Journal with any observations on the *nature* of the danger which thus threatens the junior branches of the community, and which indisputably exercises the most pernicious effects on their constitutions, I will merely remark that one concern in the city, from which I have obtained the greatest number of poisonous specimens, employs eleven men daily in the preparation of these articles, furnishes immense quantities of them to country confectioners, supplies many of the minor shops in the metropolis, and, if I am rightly informed, exports to our foreign possessions to a considerable amount. Extent of manufacture always implies extent of sale, and in this case the ratio of the consumption of course equals both. I cannot, therefore, be accused of exaggeration, when I assert that millions of children are thus daily dosed

with metallic and vegetable poisons, in minute quantities it is true, but in quantities dependent on their amount on the caprice of a workman or a machine, and sufficient in the minutest degree to exercise their peculiar insidious effects, if taken as a practice from day to day. Neither are these effects chronic alone, for not long since an *acute* case of poisoning arising from the use of confectionary of this description occurred in the children of a highly respectable family in Southwark, and on analysis the comfits were found to contain minium, or the red oxide of lead."

Dr. O'S. next enters into the modes of analysing the different colours, especially the yellow, the red, the blue, and the green; but we cannot abridge his processes, and therefore shall give two of the most important analyses in the words of the author.

ANALYSIS OF THE YELLOW.

"[The yellows ordinarily met with, are coloured either by gamboge, massicot, Naples yellow, the chromate of lead, or vegetable lakes.]

The *yellows*, coloured by *gamboge* externally, when washed thus with distilled water, form an opaque yellow emulsion, which lets fall no deposit. By evaporating this emulsion to dryness, a little strong alcohol, added to the residuum, dissolves instantly the gamboge in a state of perfect purity. The alcoholic solution is then to be transferred to a test tube, and an equal quantity of distilled water added. The gamboge is now precipitated as a lively yellow; a drop or two of strong ammonia added, redissolves the gamboge, producing a blood-red solution, which again is precipitated pale yellow by the addition of nitric acid. This simple concatenation of experiments affords abundant proof of the presence of this substance. If the yellow colour proceeded from saffron, turmeric, or any other similar substance, it would form a *solution*, not an *emulsion*, with water. It would not be precipitated from its alcoholic solution by water, neither would it be precipitated from its ammoniacal solution by nitric acid. Two or three small comfits are amply sufficient for the process,

* "Sealed phials, containing specimens of the poisoned comfits, are left at THE LANCET Office for public inspection, in order to supersede the necessity of a description of their forms which could at best communicate a very faint idea of the pernicious kinds."

as it will detect the 100th part of a grain of gamboge. If great expedition be required, alcohol may be used at first to dissolve the colouring matter, and thus the tedious evaporation will be avoided.

If the *yellows*, when washed with water, and the comfits removed, let fall a yellow deposit, and leave the supernatant liquid colourless and transparent, the deposit is either the chromate of lead, Naples yellow, (*oxide of lead and antimony*), massicot, (or the yellow oxide of lead,) or, finally, a vegetable lake of alumina or lime. In most cases also, the precipitate contains sulphate of lime.

We can now readily gain a clue to which of these divisions it belongs, by the following simple system of trial tests, viz. by placing a minute portion of it, moistened with a small drop of distilled water on a thin slip of mica,* and holding it over the flame of a spirit lamp till it be heated to redness. If it be a vegetable lake of lime or alumina, it first chars, blackens, exhales smoke, and then leaves a brilliant, white, soft, earthy mass, entirely soluble in acetic acid when transferred to a watch crystal. A portion of this mass, if lime, stains moistened turmeric paper red; if alumina, has no such effect.

If, instead of charring and becoming white, the spot becomes red, and is surrounded with a little yellow circle, the colouring is massicot or yellow lead.

If, during this operation, dense white fumes are evolved, and leave a copious circle of the same colour on the mica, the substance, besides lead, *probably* contains antimony, and is, therefore, the Naples yellow.

If the colouring matter be chromate of lead, beautiful phenomena mark the action of heat, accomplished in the manner I describe; the substance on trial darkens in colour, then shows a red surface, and by and by bright green spots are seen mingled with

the red. This contrast of colours becomes especially striking on the addition of a drop of water.

So far the experiments are trial tests, and may be performed in as short a time as it takes to read their description; our next object is to obtain unimpeachable evidence; this, in the case of the massicot, is acquired readily, by treating a grain or two of the yellow mass on a watch-glass with ten drops of nitric and six of muriatic acid, aiding the action by the momentary application of heat, white flakes of the chloride of lead now form and float on the acids; they are to be removed with a capillary tube, and transferred to a bit of firm charcoal, by directing the blow-pipe flame on the chloride, it instantly fuses, and disengages globules of metallic lead, surrounded by concentric circles of red and yellow.

If the evolution of dense white fumes indicate the presence of antimony, the yellow matter should be treated, as just now described, with nitric and muriatic acid. The chloride of lead should be removed, and a few drops of distilled water poured on the residual fluid previously evaporated to dryness. If antimony be present in the smallest quantity, a white precipitate remains, which, if exposed to a current of sulphuretted hydrogen, expelled from a small bladder, furnished with a tube and stop cock, is converted into the orange-red sulphuret of antimony. The chloride of lead is then to be reduced by the blowpipe as before, and we have thus certain evidence of the presence of antimony and lead. Half a grain of the Naples yellow is sufficient for this chain of experiments.

If on the mica, green spots are mixed with the red, indicating chromate of lead, two or three grains of the remaining yellow matter should be fused for a quarter of an hour on a slip of mica, with an equal quantity of nitrate of potash, chromate of potash is thus formed, the green spots disappear, and red flocks of minium, or the red oxide of lead, are seen in the fused nitre. The fusion should now be discontinued, and the cooled mass dissolved in distilled water on a watch-glass; the solution should then be separated

* Mica can be procured at the mineralogists' shops at a very cheap rate, it is of immense service in minute analyses of this kind. (See LANCET, No. 396.)

from the red oxide by a capillary tube, and transferred to another crystal. Nitrate or acetate of lead will now occasion in it a precipitate of the yellow chromate of lead. The red flocks are to be heated with nitro-muriatic acid, and the resulting chloride of lead reduced on charcoal to the metallic state.

The protracted fusion of the nitrate of potash may be easily accomplished, by placing a slip of mica four inches long and two broad, over the mouth of a wine glass, so that it can be balanced by a shilling placed on it over the glass; about two inches thus project, beneath which is placed a spirit lamp, and the fusion may be kept up an unlimited length of time. To those unprovided with costly apparatus, this simple substitute may prove, as it has to me, of considerable value.

ANALYSIS OF THE RED.

The red, on being washed or boiled with water, either form a coloured transparent solution, which affords no deposit, and filters through paper, or is coloured and affords a deposit, or affords a dense deposit, and leaves the fluid transparent and colourless.

In the first case, the solution is entirely decolourized by chlorine, or by dropping in a particle of the chloride of lime. If a second portion of it be changed to orange-yellow by sulphuric acid, and a third assume a violet with ammonia, and if no black colour is produced by adding the sulphate of iron, it may be concluded to be a solution of *cochineal*.

If a deposit takes place, which, when dried and heated on mica, chars, blackens, and finally becomes white, and the residuum soluble in acetic acid, it is a vegetable lake of alumina or lime, probably carmine.

If the deposit be a bright red colour, and subside rapidly, it is probably either the red oxide of lead, or the sulphuret of mercury; in either case heat on mica; if the former, the colour remains unchanged, and the substance is permanent at a red heat. If the latter, it is darkened on the slightest application of heat; if then removed, it regains

on cooling a brilliant vermilion colour. This alternate blackening and reddening may be repeated *ad libitum*, till it is finally volatilised, leaving no trace behind.

So far, as in the analysis of the yellows, the experiments are but trial tests. The reduction of the respective metals is next to be accomplished. This is easily effected, by boiling a few particles of the colouring matter in nitro-muriatic acid. If the trial test has pointed out the sulphuret of mercury, on evaporating nearly to dryness, brilliant crystals form on the watch-glass, these should be redissolved in a few drops of distilled water, acidulated with nitric acid, and a gold ring with a bit of thin iron wire introduced. If the colouring matter contains the one-thousandth part of a grain of mercury, it will be thus deposited on the gold as a white amalgam.

If the red colour was permanent on the mica, the colouring matter is to be heated with nitro-muriatic acid as before described, and reduced on charcoal to the state of metallic lead."

The author, urged by a sense of public duty, laid the present subject before the Home Secretary; but how far his representations may lead to any legislative measures, is uncertain—or rather, we may safely say, hopeless. The members of Government, in this country, are too deeply immersed in political contests, to pay much heed to the public health—a subject which has always been neglected by our legislatures, even upon much more important points than confectionary. It appears that the only enactments respecting the *SALUS PUBLICA*, which Coleridge thought worthy of insertion in the latest edition of Blackstone's Commentaries, are those which enforce the observance of quarantine, which prohibit the *adulteration of wine*, the sale of unwholesome meat—or *meat bought of a Jew!* It is surely a monstrous shame that the poor Hebrew should not be allowed to sell his pork, seeing that he can make no use of it in his own kitchen!

Dr. O'Shaughnessy is evidently a clever chemist, and his industry appears equal to his talent in this department of human knowledge.

XXXIII.

COLCHICUM IN CHOLERA. By Mr. TAITT,
Caen, Normandy.

THE subject of cholera, from a dread of its appearance in this part of Europe, seems to occupy much public attention; it therefore becomes the duty of every professional man, to give his experience in the disease, so formidable in its nature, and so intractable in its management. With this view a communication was made to the Editors of the *Edinburgh Medical Journal*, in December last, by a young friend of mine, stating the successful use I have made of the SATURATED TINCTURE OF COLCHICUM in many cases of the milder form of the cholera, as it appears in this part of Europe; but as the paper has not been acknowledged, I beg, if you think it of sufficient importance, that you will, through the medium of your *Journal*, suggest it as a remedy worthy of trial in the more aggravated forms of the disease, as it appears in Asia, and lately in Eastern Europe. It was administered in doses of from SIXTY TO EIGHTY DROPS; and in no case did it fail to produce immediate, decided, and lasting benefit; except in that of an infant, which was dying when I visited it first. I think it a valuable remedy in cases of indigestion, with vomiting and purging, as well as in diarrhœa proceeding from a deficiency or total want of bile; all which appear to be modifications of the same disease. There is at present residing in your neighbourhood a most respectable family who can vouch for its efficacy—six members of which, in common with many other inhabitants, both English and French, residing on the same side of a street in this city, were seized on the same night, some time in September, 1829, five of whom were relieved by this remedy, and up and well in a few hours, after a dose of castor oil—while two others, mother and daughter, who would not consent to take it, were confined several days. I will not enter into any theoretical speculations on the subject, but simply state, that it was in fine taken by myself, as a probable remedy, and powerful stimulus in exciting

the liver, when in a state of great torpor, and aggravated by exposure to a cold evening air, in the vale of Taunton, after a fatiguing hot ride through part of Devonshire, during a sultry day in the month of Sept. 1825. My attack was ushered in by cold chills and sensations similar to those of a slight paroxysm of intermittent, followed, on awaking four or five hours afterwards, by frequent eructation of offensive gas, vomiting and purging. Being in the habit of taking this tincture to regulate the biliary secretion, which was deranged by a long residence in the West Indies, I happened to have a vial in my chaise-box, and took about sixty drops, by the light of the street lamp. This dose arrested the symptoms in less than fifteen minutes, and enabled me, after a dose of Seidlitz in the morning, to proceed on my journey. A similar effect followed an attack the next Autumn at Liverpool, when much of the disease at that time prevailed. I communicated these circumstances to a friend of mine, at present on the civil establishment at Madras, who not being a professional man, will no doubt have allowed them to escape him. He was, however, the father of the family before alluded to.

Your experience in both climates will enable you to judge of the probable success of this medicine in the diseases of India, if it be identified with that of Europe, or only differing in degree from accidental or particular causes; and your zeal I am sure will insure it a trial, if you think so.

R. TAITT.

Caen, May, 1831.

XXXIV.

SPECTRAL ILLUSIONS

THE following instance, related by a medical gentleman in whose person it occurred, is worthy of notice on more than one account. It appears that the gentleman in question spent some months of the last Summer (1830) in travelling over various

parts of Britain, "undergoing much bodily exertion, often extending to a considerable degree of fatigue, and accompanied by its usual concomitant, a disinclination to mental exertion." During this period, he read little, which was contrary to his usual habits; and, in fact, using scarcely any intellectual exercise. On returning to Edinburgh at the commencement of the Winter session, all active corporeal labour was discontinued—several hours daily were spent in dissection—and the remainder of the day in examining and arranging various plants and insects.

"While engaged in the latter occupation, it was of course necessary to examine minutely the composition and structure of the different objects, many of which were so small as to require the use of glasses. In short, I had made a sudden change from corporeal without intellectual exercise, to its opposite, or intellectual without corporeal; such exercise, too, being almost limited to the perceptive organs, as is evident from the manner of spending the day just mentioned. Shortly after this commenced, I began to feel, towards the evenings of several successive days, much heat and pain of eyes, with a disagreeable sensation of tightness and pain between the eyebrows, to such an extent as generally to prevent sleep, until after the repeated application of cold, by immersing my forehead in water. Notwithstanding the alleviation afforded by this, there still remained a tendency to start, awake suddenly, and apparently after having slept but a few minutes. On these occasions, it almost always appeared as if there were various strange objects in the room, uncouth and shapeless forms (if such an expression may be allowed), hardly referrible to any thing I could remember to have before seen. There were rarely more than two or three present at once, and they were commonly resolved into chairs or other real objects, after a minute or two of steady inspection. Occasionally, forms of a more distinct kind appeared; and once I had a lively representation of the white-robed figure to be seen in the Diorama of Holyrood Chapel, but it had ceased to be visible

before it occurred to me where I had seen it before, or even that it was not entirely original. Just on first awaking, I never knew these appearances to be delusive, but a minute or two of time seemed to suffice for the gradual recalling and connecting of previous ideas with sufficient clearness to remind me that they *must* be so. Until I knew them to be illusions, the impression was rather disagreeable, and inclined to excite some feeling of apprehension. The knowledge of their ideal nature was almost always followed by their immediate disappearance or metamorphoses into chairs, curtains, moonbeams, or other realities. A few times this was not so immediate, and I was obliged once or twice to resort to the sense of touch in order to confirm the conclusions of reason. I believe that, at the moment of waking, there was a sensation as if I had received a blow on the forehead, but of this I was never sufficiently collected to be quite certain. These nocturnal startings from sleep, and illusive appearances, lasted about ten days; after which, having finished the examination and arrangement of my botanical and natural-historical preparations, and commencing to attend the College lectures, a more varied excitement of the intellectual powers, and somewhat less sedentary habits supervened, and the restless sleep and illusions gradually ceased, and were soon almost forgotten; but the cessation was so gradual that I should be quite unable to say when it was completed."*

About two months afterwards he had again occasion to devote himself almost entirely, for a short time, to intellectual pursuits; and again the fanciful visions of the night returned. Our readers will readily draw their own conclusions from the foregoing narrative.

* Phrenological Journal, No. XXVIII, June 1, 1831.

XXXV.

ULCER OF THE RECTUM OPERATED ON.

IN the Med. and Physical Journal, for April, there is a case of the above kind reported from the Middlesex Hospital, which is worthy of notice. The patient was a female, aged 38, who, for two years previously had experienced pain in the rectum, when the bowels were evacuated. This increased in severity, and was attended by unpleasant sensations about the loins, &c. and some sanguineous discharge. In December, 1830, she entered the Middlesex, labouring under severe pains in the rectum, with the occasional issue of pus and blood.

On examination of the rectum, it was found to be indurated and ulcerated to the extent of two inches; but the finger could be passed beyond the diseased part into a healthy gut. Various remedies were tried, but in vain. Mr. Mayo then determined on an operation.

"The operation was performed on the 25th of February, in the following manner:—the patient was laid upon her side, with the hips and knees bent. The fingers being then introduced into the rectum, the knife was plunged into the perineum, on one side of the bowel, and, an incision of some depth being thus made laterally, the dissection was continued forwards from thence, so as to separate the vagina from the rectum. The dissection was then continued entirely round the rectum, including half an inch of integument, with the sphincter muscle. By this means, a length of two inches and a half of the extremity of the rectum was separated from the adjacent parts: it was then cut off with scissors from the sound rectum above. The operation was performed slowly, and the vessels, about nine in number, were tied as they were divided. The patient lost about twelve or fourteen ounces of blood."

In about two hours after the operation, and when the smarting of the wound had subsided, she observed that she found herself entirely relieved from the pain and distress to which she had been subject for so

many months. The appearance of the wound is singular. The extremity of the bowel is not more than half an inch from the cut edge of the skin, and the intervening granulations are healthy and rapidly cicatrizing. The bowels act regularly once a day; and the patient is aware of the presence of the feces in the rectum. In about five minutes after this sensation is perceived, the bowels act much in the usual manner, though it is evident that there can be nothing at present equivalent to a sphincter muscle. A hope is entertained that when the wound is cicatrized and contracted, the patient will have some power of retaining solid feces.

It is probable that the above is the first operation of the kind, or at least to the same extent, which has been performed in this country. We know of one case where a medical gentleman had a chronic and painful ulcer, surrounded with raised and indurated edges, at about an inch from the extremity of the rectum. Mr. Guthrie dissected it out. Several abscesses formed, and two sinuses were afterwards obliged to be laid open in the same manner as for fistula. The sphincter was, of course, divided, and part of it removed in this operation; but the patient has entirely recovered, and the function of the sphincter is as perfect as ever.

XXXVI.

SPASM OF THE COLON.

Mr. LYON has published some observations on this subject, in the April number of our contemporary, the LONDON MED. and SURG. JOURNAL. The complaint, Mr. L. observes is more particularly incidental to females from their inattention to their bowels. The symptoms are these. After constipation, there are paroxysms of pain, rising into violent spasms, with remissions, but not complete intermissions. The pain is referred to the transverse arch and sigmoid flexure of the colon. The abdomen is flaccid—pressure relieves the pain—and nausea is sometimes present. The tongue is usually moist

and white, the pulse rarely beyond 85, full, and compressible. There is little thirst, or increase of temperature on the surface. After a day or two, a purging comes on, and the disease is commonly treated as diarrhoea, though the cause, our author thinks, is scybala. The treatment which he has found most successful, consists in the administration of purgatives combined with opiates—for instance, a black draught with eight minims of laudanum every four hours till the stools put on a healthy character.

XXXVII.

IODINE IN CUTANEOUS DISEASES.

DR. JEFFRAY, of Liverpool, has stated in the *Lancet*, that he has administered the tincture of iodine in various cases of psoriasis, and the different varieties of herpes, "with almost never failing success," as well as in *lepra vulgaris*. In the latter case the diluted unguent. hydrarg. nitrat. was also employed. We observe that Dr. Jeffray begins with ten drops twice a day, increasing the dose to thirty drops night and morning.

XXXVIII.

M. ANDRAL ON CHOLERA.

THIS eminent pathologist has lately been amusing a Parisian audience with a disquisition on a disease which he has never seen—with whose *pathology* he acknowledges himself ignorant—whose causes he has been unable to discover—but whose treatment is laid down with boldness—while he ridicules the *methodus medendi* employed by those who have seen the disease in all its direct and most deadly forms. He tells us, what every body knew before, that, "on opening the bodies of those who sink under cholera, there can be discovered no notable alteration either in the intestinal canal or its appendages." Hence he thinks cholera

should be classed with the *enteralgic* rather than with the *enteritic* diseases. The treatment which he (who never saw the disease) would recommend, is free bleeding among the young and vigorous—external irritation—and plenty of laudanum internally. Now all these means have been employed, and with little success. But because the English have found by repeated experience, that calomel is useful in allaying the gastric and intestinal irritability in this dreadful disease, M. Andral seizes the opportunity of ridiculing the English practice. "I cannot account," says he, "for the prostrate veneration which English physicians pay to this metallic drug. I can only compare them to those poor Indians who, faithful to their ancient creed, persist, with words of mystic import, in plunging their sick into the charmed waters of the Ganges." Wonderful infatuation! Strange that a people who have carried every improvement, in art and science, immeasurably beyond the French, should yet be so stupid as not to see that every disease is *gastro-enterite*, and that gum-water, leeches, and a glyster-pipe are all that a physician can want or wish in this or any other climate! Finally, says M. Andral, "physicians in India dose their choleric patients with a draught composed of brandy, rum, pimento, pepper, camphor, &c. which, I must confess is little better than a kind of *saue qui peut* remedy." MED. GAZ.

Now this sagacious *pathologist*, who appears in this instance at least, to be no great physician, tells us that cholera is *enteralgic* rather than *enteritic*; and if so, why should not spices and stimulants be allowed, as well as laudanum? But the fact is, he knows nothing whatever of the nature, cause, or treatment of a disease on which he has descanted largely, in order to cast reflections on English physicians.

XXXIX.

INHALATION OF CHLORINE IN PHTHISIS.

In a late number of the *Archives Générales*,

M. Cottureau, has detailed thirteen cases, where inhalation proved curative or beneficial in cases of phthisis, or diseases very much resembling phthisis. We shall glance at a few of these, while waiting for the statement of failures that is promised by the author.

Case 2. Was a lady the wife of a medical man, delicate and nervous, who in the year 1823 became affected with cough, and pain in the chest. Her husband applied leeches but with only temporary relief. Numerous blisters followed, with different medicines, all unsuccessfully. A consultation was called; the expectoration was found to be purulent, and the fever hectic. Emaciation advanced rapidly. The stethoscope now discovered pectoriloquy at the summit of the right lung. In the other lung there was a dull sound for a considerable extent. Five days afterwards, the patient was examined by another physician, who came to the same auscultic conclusions, and pronounced the disease to be phthisis unequivocally. The inhalation of chlorine gas was then determined on. We need not detail the proceedings. The process was commenced on the 15th of May, by eight inhalations, with three drops of the solution in each. On the 18th of June the cure was pronounced as complete.

We confess we are very far from being convinced that the above was a case of real phthisis, notwithstanding the auscultic indications which are laid down on paper; but which we have great reason to distrust, from the innumerable errors which we every day see committed in practice. We shall, however, give one more case, because it is the one which Dr. Cottureau considers as the most unequivocal.

Case 12. Madam N. aged 27 years, of delicate constitution, lymphatic temperament, and phthisical family, was rickety in her infancy, and afterwards scrofulous. In December, 1827, she was seized with a dry cough after an abortion. The cough and other pulmonary symptoms increased, and in April 1828, she again became pregnant, and the pectoral phenomena instead of being

mitigated, were exasperated, and accompanied by hæmoptysis. Nine months after that she had a safe delivery, after which the pectoral symptoms increased in severity. In July 1829, when M. Cottureau first saw her, she was greatly emaciated, the skin had a dry leaden aspect, the eyes were dull, the extremities frequently cold, the appetite indifferent, her cough not severe but frequent, especially in the morning, with copious easy expectoration of greenish yellow or greyish, opaque, consistent masses, amidst clear, visciduous mucosity; there was also constant pain in the larynx and between the shoulders, with shifting pains throughout the chest—great oppression—and almost complete loss of voice. The sound on percussion was very clear in a circumscribed spot about an inch under the right clavicle; around this spot perfectly dull, and throughout the rest of the right side somewhat obscure; but on the left side it was natural, except that some obscurity of sound existed in the lower third. In the axilla, as well as in the right subclavicular region, at the spot already mentioned, there was unequivocal cavernous respiration, cavernous râle and pectoriloquy—around this spot a complete absence of respiratory murmur, and in the rest of the right lung tracheal respiration with slight crepitating râle—in the left side natural respiration in the two upper thirds, mucous râle in the lower third. The pulse was 80, but very irregular under the slightest exercise, the breathing always hurried, and a hectic paroxysm occurred every evening, with its usual accompaniments and termination. On the 20th July the inhalation of chlorine was begun, but after a day or two an intermission was necessary, on account of an uneasy sense of heat and dryness in the back of the throat, which appears a very common effect of the chlorine when first used. In a few days, however, it was resumed, and gradually increased to ten inhalations per day. During the first three weeks of August two other intermissions were required on account of an increase of pain and a sense of heat in the chest. About the middle of September the general symp-

toms were greatly mitigated. For the ensuing month the inhalation could not be persevered in, on account of the state of the chest; but it was resumed at the middle of October, and continued regularly afterwards. At the middle of November the amendment was so great that the lady considered herself quite cured. Towards the close of December her state was as follows :—The appetite, strength, and flesh natural; the cough and expectoration gone; the breathing not affected by walking or climbing; the sound on percussion dull over a circumscribed spot, corresponding with the point where pectoriloquy was formerly heard, and the respiratory rôle inaudible in the same quarter; but every where else the lungs appeared perfectly in their natural condition, free of morbid rôle, as well as of pectoriloquy. The inhalation was persevered in for security's sake till the middle of January.—For three months afterwards this patient continued to enjoy uninterrupted health. Subsequently, however, she was exposed to frequent fatigue and night watching, in consequence of the illness of her infant; and at the end of August she was seized with symptoms of general fever, which proved fatal in four weeks, without having ever been accompanied with any signs of an affection of the lungs. In giving an account of the dissection, we shall confine ourselves to the appearances in the respiratory organs. The epiglottis, larynx, and windpipe were natural. Two cervical glands on the right side were enlarged to the size of small nuts, and contained each a nucleus of friable, chalky-like matter. Both lungs were pale-grey, pliant, and crepitating. The left adhered here and there to the costal pleura by old adhesions. In the middle part of its upper lobe there was a tubercle as big as a pea, similar to the nuclei of the diseased cervical glands, and also some minute tubercles in the upper portion of the same lobe. The right lung was free of adhesion. “At the fore-part of its apex there was, over a space 18 lines long and 8 deep, a darker tint of the tissue, with very firm consistence, and an appearance of wrinkling; and when this mass was

cut into, it was found composed of hard, compact, almost fibrous tissue, of a slate colour marbled with greyish-white; it was not traversed by any bronchial tubes, all of which were obliterated as they approached it. On the edge of this apparent cicatrix there was a small steatomatous-like tubercle, scarcely a line in diameter; and in various parts of the upper lobe of the same lung about a dozen minute miliary tubercles; but the tissue of that lung, both around the tubercles and in its other lobes, was quite healthy.”

The foregoing is certainly a very strong case, *if all the particulars are candidly and honestly stated*—which, for the honour of science, we hope they are. But it is to be recollected that tubercular cavities have been known to cicatrize under other modes of treatment, and even where no treatment was ascertained. The *post hoc, ergo propter hoc* reflection, therefore, is recalled to our memory, independently of the unavoidable suspicions which attach to histories of the effects of new remedies. We shall look forward to the sequel of Dr. Cottreau's paper, where the unsuccessful cases are to be given. In the mean time, as he assures that even in these last, there was mitigation of the symptoms, perhaps prolongation of life produced by chlorine inhalation, we deem it a duty to throw out these faint hopes for the encouragement of our brethren.

XL.

SUCCESSFUL EXTIRPATION OF CANCER OF THE RECTUM.

This operation took place at the Versailles hospital, and was performed by M. Maurin. The patient (J. Baptiste) was 31 years of age, of delicate constitution, who presented himself to M. Maurin in the beginning of September, 1828, complaining that he could not procure a stool, except by the aid of enemata; and that he felt great weight and acute pains in the rectum. On examination

by the finger, a hard and irregular tumour was discovered, about two inches from the anus, ulcerated in the centre, and discharging a sanious ichor, of a most intolerable fetor. The mobility of the tumour, notwithstanding its distance from the orifice of the gut, induced the surgeon to entertain the idea of extirpation. Baron Dupuytren was consulted on the 17th September, and made the following note. "There exists about two inches from the orifice of the rectum a carcinomatous tumour, occupying one side of the gut to the extent of about two inches. There is no chance of a cure, except by an operation—and this operation must be both difficult and dangerous. If the patient shall make up his mind to the risk of the operation, I am ready to attempt it." Sept. 21st. Encouraged by this opinion of so celebrated a surgeon, M. Maurin himself determined to operate. For this purpose he made an incision through the posterior and left part of the sphincter, by means of a probe-pointed bistoury, when the tumour was seized by a kind of tenaculum, and drawn downwards gradually and gently, till it appeared in view, when it was carefully removed by means of scissors. When taken out, it was found to be of an oval form, a little flattened, and two inches in length, with an ulceration on one side. It was of a very compact tissue. The operation was very painful, and considerable hæmorrhage attended, but was soon arrested by stuffing the rectum. In the course of five hours after the operation the patient experienced acute pains in the epigastrium, with dysury, sharp fever, and intense thirst. Two bleedings relieved these symptoms, and he slept some in the course of the night. In the morning the pulse was reduced from 140 to 100, and the patient was again bled. When the dressings were removed, there issued a considerable quantity of pus with blood. In the course of the succeeding days the state of the patient was improved—the purulent discharge lessened—the lancinating pains ceased, and, by the 15th November the discharge was almost nothing. Consistent and spontaneous stools were passed. On the 1st December the

wound in the sphincter was found to be cicatrized. On the 8th of the same month, the patient was discharged from the hospital cured. He experienced no difficulty or pain in passing his motions.

This case, taken in connection with that reported in the present PORTFOLIO, from the Middlesex Hospital, holds out some hope in circumstances where the patient's life is rendered miserable by a painful disease, that seems to admit of no other remedy but the knife.—*REVUE MED. Feb. 1831.*

XLI.

WOUND OF THE CHEST AND LIVER.

A HUSSAR, aged 24 years, was received into the VAL DE GRACE Hospital on the 16th February, in consequence of a sabre-wound, which penetrated between the third and fourth false ribs, on the right side, within two inches of the spine. The sabre, which was large, pierced the diaphragm, and penetrated into the centre of the liver. M. Fournal was immediately summoned, and found the soldier pale, faint and sick, with feeble pulse and profuse hæmorrhage. The blood which issued from the wound was of a very black colour; the respiration was short and laborious—the extremities cold. Warmth was applied to the feet, and warm acidulated drinks were administered through the night. 17th, in the morning. The pulse was full and quick—the breathing very oppressed. A large venesection—two lavements—total abstinence from food. The venesection was repeated at 3, p. m. He had no sleep the succeeding night; yet the symptoms were somewhat mitigated. 18th, morning. The countenance was yellow—great pain in the region of the wound, with some œdema. Forty leeches were applied to the right side, and the part covered with poultices. The night was passed tranquilly, but without sleep. 19th. Pulse full, soft, regular—pain in the right shoulder and side—the skin deeply tinged yellow—bowels constipated—urine scanty and very red—

wound swelled, but no suppuration apparent. Lavements were exhibited with little effect. Twenty-five leeches around the wound—syncope was the result. The night was good, and some little sleep was obtained. 20th. The state of the patient was still better. There was, as yet, no suppuration about the wound. The yellowness of skin less intense. 21st. The patient is greatly improved in all respects—he has had a good night—and suppuration is established in the wound. Twenty-five leeches, however, were applied around the wound, and the application was followed by syncope. From this time the patient continued to mend, though the yellowness of the surface remained for some time.

XLII.

NEURALGIA OF THE HEART.

DR. ELLIOTSON mentions the case of a man who had been discharged from St. Thomas's Hospital, little, if at all, relieved, and who appears to have laboured under an affection of the kind in question. He had sudden pain recurring across the chest, diagonally from the centre of the sternum across the left nipple. It was not more violent when walking gently than when at rest—but if he moved quickly the pain was more severe. Nothing particular was observable in the pulse, nor in the chest, when examined by the stethoscope. The pain was sudden and transient—darting like neuralgia in other parts. "It was not (says Dr. E.) angina pectoris, for it came on as frequently when he was sitting perfectly still, and he even got relief from gentle motion. It did not stop his breath at all; nor make him feel faint, or give him a dying sensation." Dr. E. gave him the carbonate of iron, and he was much better in some respects—that is to say, he was free from pain so long as he kept quiet—but it recurred when he moved about. He would not remain in the hospital for sufficient trial. Taking the foregoing circumstances into

consideration, we are inclined to differ (which we seldom do) from our friend Dr. E. We think it was one of the many forms which angina pectoris assumes. It has been designated by the term *steno-cardia—sternalgia*, and many other names; nor is it essential that the paroxysm should be brought on by muscular exertion. We have seen many instances where this was not the case, yet where the disease was evidently angina pectoris. Even in the above case, the exertion of the muscles, when arrived to a certain amount, excited the paroxysm. We are inclined to coincide with Dr. E. that the complaint is a species of neuralgia.

XLIII.

PLEURITIS AND PNEUMO-THORAX.

THIS is a case related by Mr. Smeal, published in the first number of a new periodical (the *Glasgow Medical Examiner*) for April last. The patient was a young man, a cotton-spinner, who became affected in March, 1829, with cough and hæmoptysis, after exposure to cold. For these he took no advice, but went to Ireland, where his health was much improved. In January 1830, the hæmoptysis returned in considerable quantity, and again ceased without medicine. In the Spring of the same year he was seized with acute pain in his left side, which confined him for seven weeks to bed. The febrile symptoms subsided, but left a dry cough, and some dyspnœa. When first seen by Mr. Smeal, 25th April, 1830, he was debilitated, emaciated, and worn down with dry cough and difficulty of breathing.

"The patient being stripped, the epigastric and hypochondriac regions appear more prominent and feel more tense than natural; but no other symptoms of disease of the viscera of these parts. The action of the heart is felt and seen under the cartilages in the right side of the chest, instead of in the left; left side of chest is visibly larger than the right, both when standing on a

level with the patient and on a chair behind him looking down upon him, but careful measurement shews little or no difference; left intercostal spaces tense, but no sensible fluctuation. *Immediate Percussion*—Complete *mattité* of sound in the left side of chest, except in the space of three fingers' breadth below the clavicle, in which space the sound is clear, but cannot be recognized to be more clear than same space in right side; right side of chest sufficiently sonorous, except the space there unnaturally occupied by the heart. *Mediate auscultation*—Total absence of the respiration in the left side, including the clear sounding space below the clavicle; except at the root of the lung over the large bronchial tubes in the space between the basis of the scapula and spine, where the bronchial respiration is heard very distinctly, clear, sonorous, and without any mixture of *râle*, egophony could no where be detected. In the right side of the chest, except in the space occupied by the heart, the respiration (both vesicular and bronchial) is very clear, strongly puerile, and without any mixture of *râle*.—Stethoscopic examination of the heart in its unnatural situation, indicates a perfectly healthy state of its walls, cavities, and valves.

From these negative and positive symptoms, no doubt could be entertained of extensive pleuritic effusion in the left side of the chest, compressing the lung into a small space against the spine, totally preventing the entrance of air into its vesicles and smaller bronchial tubes, and pressing the heart and mediastinum a considerable distance into the right side of the chest; whilst the absence of the respiration, and the clearness of sound in the space of three fingers' breadth below the clavicle, clearly indicated a slight complication of pneumo-thorax. At the same time, the absence of characteristic expectoration, of *tintement métallique*, of *bourdonnement amphorique*, and of *souffle* of every kind, shewed that, at present at least, there was no communication between the effused fluid and the bronchiæ."

Paracentesis thoracis appeared to Mr. Smeal as the only remedial measure that

promised a cure or even relief; but as this was a serious operation in its results, he first tried some active means of producing absorption. Purgatives, diuretics, &c. were employed, but without any good effect. On the 29th of May, paracentesis, between the fourth and fifth ribs, was performed by means of a large-sized hydrocele trocar, when 21 gills, imperial measure, of a transparent yellow fluid were evacuated. June 3d. The patient is much relieved in all respects, and can now lie on either side—pulse 108—heart's action still visible in the right side, but nearer the sternum than before the operation. Left side of chest very sonorous, but no respiration to be heard. Large blister to that side—purgatives. 26th June. The patient is now nearly in the same state as before the paracentesis. The operation was repeated, and 18 gills of similar fluid abstracted. The wound was enlarged by a probe-pointed bistoury, so as to admit the point of the fore-finger, and a tent was introduced, with the intention of rendering it fistulous. In two or three days the tent was withdrawn, and another introduced, as there were no symptoms of inflammation or fever. On the fifth day, however, we find him with fever, bilious vomiting, heat of chest, inflammation of pleura, and emphysema of the left side of chest, face, and arm, produced by the air forced out of the chest by coughing. A third tent was introduced. Calomel and rhubarb. 1st July. Inflammatory symptoms continue—canula introduced, and five ounces of *turbid* serum evacuated. The tent was not re-introduced; but the wound covered with adhesive plaister. 2d July. The canula again put in, seven ounces of decidedly *purulent* fluid extracted. Between the 5th and 16th July, the patient was visited every other day, and the canula introduced, followed by an average discharge of 16 ounces of purulent matter. The febrile symptoms gradually subsided, and the cough abated. The left lung is the same as before the operation. The heart now pulsates under the sternum. 30th July to 15th August, visited and treated as before. The discharge is diminished to 12 ounces every second day. The

The patient is much improved in all respects. 7th Sept. Continues to improve. The discharge is now of an amber colour, and greatly diminished in quantity. From this time, the patient called at Mr. Smeal's house every fourth day to have the canula introduced.

27th Sept. Continues to improve ; coughs occasionally ; expectoration the same as when he applied to me about five months ago ; no vomiting ; bowels and urine natural. Heart in its natural situation ; pulse 96, of tolerable strength, respiration 25 times in a minute ; in the right lung it is very energetic and decidedly puerile, being unusually clear and full, even as low as the 10th and 11th ribs, where it is generally very indistinct in most people. Left side of chest very much contracted ; its antero-posterior measurement 5 1-4 inches, whilst that of the right is 3 1-2 inches—difference 3 1-4 inches. The patient appears to lean to the left side in consequence of the shoulder being drawn downwards ; the ribs at their curvatures are nearly in contact, as it is now difficult to introduce the canula ; whilst the intercostal spaces towards the sternum, especially the lower ones, are very much depressed. A bougie introduced into the wound comes in contact with the diaphragm at the distance of 1 1-4 inch, with the heart and pericardium at 4 1-2 inches, and with the lung compressed against the spine at 9 1-2 inches. From what is now related, it is pretty clear that all, or at least nine-tenths, of the blood sent out by the right ventricle is conveyed to the right lung only through the right division of the pulmonary artery ; and that the left auricle must be supplied with the changed blood only by the right pulmonic veins, so that the right lung now performs double duty. Patient now called on me once a week—tonic treatment continued.

18th of October.—Continues better ; ten days since last introduction of canula ; discharge from chest at this time drawn off, being put into a graduated glass measure, amounts exactly to 6 ozs. ; it is very tena-

cious andropy, and exactly resembles the morbid discharge passed in the urine of persons affected with chronic inflammation of the mucous coat of the bladder. Having laid him down on his right side, I injected from 16 to 20 ozs. of tepid water into the left side of his chest, in order to try if coughing would cause any of it to come out by his mouth, but nothing of the kind took place ; it flowed out again by the canula, when he turned to his left side, and I am convinced from all that has occurred, that since I first saw him there has been no communication between the bronchiæ and the pleura ; but whether his case has been simple pleurisy, or pleurisy excited by the rupture of a tubercle without bronchial communication, or with it, and that communication again cut off by the gradual compression of the lung, is at present impossible to determine. He tells me, that, notwithstanding his present betterness, he is quite unfit for work, as any exertion excites very troublesome quickness and shortness of breathing, with a sensation as if his throat would burst, great fluttering at his heart and giddiness in his head.—Treatment as before."

This poor fellow, who deserved a better fate, was caught in a heavy shower, and wetted to the skin, early in November. Fever was lighted up—the discharge became purulent—and he was carried to his grave by hectic fever, on the 27th January of the present year. We shall give the post-mortem examination in the words of the author.

" 28th.—*Sectio Cadaveris.* Messrs. J. Anderson and J. P. Glen, surgeons, were present. They had seen the patient since he came under my care, both before, at the time, and after the operation of paracentesis. The right side of the chest contained about ten ozs. of transparent yellow serum. The costal portion of the pleura healthy ; the diaphragmatic and pulmonary portions intensely inflamed, and coated with recent false membrane as thick as writing paper, which can be easily separated in small portions ; the interlobular pleura is similarly affected, whereby the lobes are glued to-

gether. The lung is compressed towards the spine, into about the sixth part of its usual size, with its upper lobe adhering to the chest by short and firm membranous bands. The trachea having been divided, the pipe of a pair of bellows was introduced, and the trachea secured on it by a ligature, in order to attempt to inflate the lung, and, if possible, to discover the false opening; in the latter we were unsuccessful, and in the former successful only in a slight degree, owing partly to the false membrane, but mostly to the bellows not being air-tight. Having filled the side of the chest with water, and keeping the lung immersed, a second attempt was made to discover the opening, expecting to be led to it by seeing bells of air rising on the water when the bellows were quickly and strongly worked, but in this we were also disappointed; even after taking out the lung, and separating its interlobular adhesions, no traces of a false opening could we discover. The middle and lower lobes were healthy, and contained no tubercles; in the upper lobe they were numerous, but very small; at its uppermost part there was a tubercular excavation, which would contain a small nut, and which was filled by a recent coagulum of blood, having a branch extended into the communicating bronchial tube. The outer wall of this excavation consisted only of the pleura, and it was here that the perforation existed; the coagulum in the excavation and bronchial communication, and the false membrane covering the perforation in the pleura, were the causes of our not discovering this perforation by the use of bellows.

Left side of the chest much contracted.—Every part of the pleura coated by firmly-organized false membrane, about an eighth of an inch in thickness, and having a flocculent secreting surface—about 12 ozs. of purulent matter in this side of the chest. The left lung not visible by reason of the false membrane which binds it down against the spine. On being cut out, it is found to be about five inches long, three inches broad, and little more than one inch thick, and totally deprived of air; its lower lobe contains no tubercles, but they are numerous

and small in its upper lobe; and in this, as in the other side of the chest, there is near its upper part a rather larger tubercular excavation filled with dark-coloured pulpy matter; but there is a portion of condensed pulmonary tissue between this excavation and the pleura. On the middle of the outside of the upper lobe, there is a nipple-like projection about the size of a small pea, which one of us conjectured to have been a place where a tubercle had burst into the pleural cavity some time ago; but on cutting into it, nothing like tubercular residuum could be recognized, therefore its nature is quite uncertain.

Pericardium, heart, and abdominal viscera perfectly healthy. Slight lateral curvature of the spine, with the convexity to the right side of the chest, and in all probability produced by the contraction of the left side."

We cannot but doubt the propriety of the surgical treatment in the above case. The enlargement of the opening, and the introduction of tents kindled up inflammation, and converted a surface which hitherto secreted a transparent fluid, into one which secreted pus. Surely there was little gained by such a conversion. We should have been more inclined, either to have left a very small tube in the wound, or introduced one every three or four days, as was practised with advantage in the sequel. There is a great probability that, had it not been for the exposure to cold in November, this man might have recovered a certain degree of health. The case, therefore, is a very interesting one.

XLIV.

TRAUMATIC TETANUS CURED.

A CASE of this kind has recently been detailed by Mr. Minskin, of Horsleydown, where success crowned the efforts of the surgeon. The patient, a man 32 years of

age, had his foot punctured by a nail on the 4th of October, and on the 7th there were constitutional symptoms which required the attendance of Mr. Minskin. These symptoms were subdued by purgatives, and every thing appeared to be going on well till the 9th, when trismus was evident. On examination it was found that the wound had assumed a livid colour, with pain shooting up the leg. The wound was freely incised, and dressed with oil of turpentine and laudanum, followed by poultices. Five grains of calomel, two of opium, and five of camphor, were ordered every hour, with a purgative draught at the same time. 10th. Passed a bad night—the medicine every two hours. Mr. Callaway saw him this day, at one o'clock. The patient was more tranquil—the stools black as pitch. Morphine half a grain, with ether and camphor, ordered every three hours. An opiate suppository followed by a turpentine enema. We need not pursue the daily details, but may say that by 17th of the same month, October, the patient was so far recovered as to be able to go into the country for change of air and restoration of health.—*Lancet*.

XLV.

NEURALGIC RHEUMATISM.

M. CONDRET relates a curious case in a late number of the *JOURNAL COMPLEMENT*, which we shall here briefly notice. A Spanish colonel, an unfortunate exile from his native land, and forced to quit the land of liberty—France, took up his abode in England. But the climate of this country disagreed with his health. He became subject to violent rheumatic pains alternating with colic, diarrhoea, and much gastric derangement. By a singular fatality a number of bugs got into his right ear, and one of them remained and died in that asylum. From this moment the colonel was harassed with pains round the base of the skull, but especially in the vicinity of the right ear, whence it seemed to radiate to other parts,

The original rheumatic pains in his right arm and shoulder now ceased. His hair began to turn white and fall off, while a great number of small but dense tubercles formed on various parts of the scalp. Sir Astley Cooper and many other eminent surgeons were consulted, but without affording any relief. At length a quack was resorted to, who threw in an injection of soap and water into the meatus auditorius, and washed out a dead bug. The pains about the ear instantly ceased, and those in the other parts of the head were greatly diminished. Returning to France, the colonel consulted M. Condret for a troublesome itching at the bottom of the meatus auditorius. The scalp was still covered with tubercles, some of them ulcerated. On carefully examining the ear, M. C. thought he could discover something unnatural down on the membrana tympani. On introducing an instrument he extracted a small ball, composed of short hairs—hairs, in fact, which grew in the meatus, but which had been detached, from time to time, when the hair was falling from the scalp. The tubercles now rapidly disappeared—the itching of the meatus ceased—but now the original rheumatism of the right arm and shoulder resumed its post, and continued to annoy the unfortunate Spaniard. Finding no benefit from medicine, the colonel took it into his head one day, to apply a handkerchief, in the form of a tourniquet, tightly round the affected arm. The part below the ligature swelled and became somewhat œdematous; and from that time the rheumatism ceased. Thus, then, the lucky thought of a Charlatan, and the unpromising remedy resorted to by the patient himself, were more effectual than all the resources of science procured from the most skilful of the faculty!

XLVI.

ANGINA PECTORIS, OR DIAPHRAGMATIC NEURALGIA.

A MAN, 37 years of age, of sanguineous

temperament, had long been subject to attacks of dyspnœa, and palpitation, for which he was now received into the HOTEL DIEU of Paris. These symptoms had commenced when he was about sixteen years of age, and they were attended by acute pain in the situation of the diaphragm and of the heart. They were easily excited or aggravated by any muscular exertion. Notwithstanding this state of health, he was drawn as a conscript, and served at the battle of Wagram, where he was wounded, and then discharged. At the age of 23, the year after his discharge, he had a severe attack of hæmoptysis, which seemed to relieve the other symptoms. Next year he had a similar attack, and with similar results. Having taken to the occupation of silvering mirrors, he suffered from mercurial emanations, and experienced numbness of the upper extremities, and many symptoms of indigestion. The spasmodic constrictions about the heart and diaphragm, however, were the most distressing part of the complaint, and for these chiefly, he entered the hospital. Two days elapsed before he was examined, and this interval of quietude had greatly calmed the action of the heart, which was nearly natural, as was the pulse. The chest was quite sonorous in every part—and the respiration was every where audible. Nothing wrong about the heart could be detected by the stethoscope. The tongue was clean, and pressure on the abdomen was easily borne, except at the epigastrium, where sudden pressure upwards brought on all the symptoms of angina pectoris. It was now observed that although the chest was well formed in respect to breadth, yet it was very much the contrary in respect to depth. Although sudden pressure at the epigastrium excited the most distressing symptoms, it was ascertained that a gradual and uniform pressure on the whole of the abdomen, by means of a roller, gave ease and comfort to the patient. The man was put upon light diet, had eight ounces of blood taken from his arm, and was enjoined quietude. In a short time he was able to ascend a pair of stairs without much inconvenience, and in a few weeks

he left the hospital—certainly not cured, but much better than when he entered the institution. The reporter, by a long train of reasoning, which we shall not follow, and cannot entirely admit, comes to the conclusion that this was a case of diaphragmatic neuralgia. We doubt whether the great distress produced by pressure on the epigastrium be any proof of the said neuralgia.

XLVII.

CASE OF MENTAL DERANGEMENT, WITH DISSECTION.

DR. FAVELL relates the case in the last number of the Phrenological Journal. On the 18th October, 1830, he visited Mrs. M. whom he had attended some months previously for an ulcer on the foot, and was struck with her altered appearance. She had now a vacant stare, dejected look, and evidently a mind ill at ease. She used only monosyllables—complained of no pain, and was averse to any exertion. Her pulse was 80, sleep regular, excretions natural. This state had existed for three or four months, without any obvious moral or physical cause. It was ascertained, however, that, for some five or six months past Mr. and Mrs. M. had not lived happily together. She had taken a dislike to some of Mr. M.'s children by a former wife, and whom she wished to be sent elsewhere. Dr. F. did not think that medicine would be of much use, and therefore only gave some directions respecting the diet, &c.

"It was on the 22d that I happened to call during dinner time, and I shall not soon forget her appearance on that occasion. She was set near the table, whilst her husband was carving a fowl, and as soon as he had taken off a leg, she immediately seized it, tore it to tatters with her fingers, and filled her mouth with the flesh, which she continued masticating for nearly a quarter of an hour. I staid with her for a considerable time, asked her various questions about herself, the fowl, her friends

&c. but all to no purpose, she would not allow a syllable to escape her. She had this day a large blister put down the nape of her neck, and reaching down betwixt her shoulders. On the 23d I saw her again, she was now very unwell and in bed,—her pulse had risen from 80 to 100,—her skin was hot, and the bowels had not been moved since the 21st. She would not allow me to see her tongue, and when I attempted a second time to feel her pulse, she made considerable resistance. I asked her if she had pain in her head, but I obtained no answer, and she continued to take no notice of whatever was done by the by-standers. Had I been ever so anxious to have had recourse to venesection, it would have been impossible to have performed the operation, from the manner in which she kept the forearm bent upon the humerus. She had a number of leeches applied to the temples and forehead. A purging draught was ordered to be given immediately, and a mixture with camphor and aq. ammon. acet. every three hours. I saw her the next day, the 24th. She had passed a restless night, her pulse was beating 130 strokes in a minute. The bowels had been freely moved, but they had not been able to give her more than one dose of the mixture. She would now answer me any question which I put to her, and complained of pain in the head. An additional number of leeches were applied to the temples, and cold cloths to the forehead. She died in the evening. On the following day, I obtained permission to open her head, which I did in the presence of my friends Dr. Holland and Mr. Gregory. There was nothing particular to be observed on the dura mater nor in the sinuses ; but on the outer covering being removed, we perceived very evident traces of inflammatory action in the arachnoid membrane, which was opaque and redder, with depositions of coagulable lymph. But the most interesting and important appearance was in the brain itself,—*the whole of the anterior lobe was in a state of disorganization*, presenting an unnatural greyish aspect ; and the cerebral substance itself was so soft, that even the slightest touch was sufficient to destroy it.

It is impossible to give an accurate description of it by words, but it has never fallen to the lot of either of my friends, to witness such extensive mischief. But it was most interesting to observe, that the *disease was entirely confined to the anterior lobes* ; and the rest of the brain and cerebellum, from the fissure of Sylvius backward, being quite healthy, and as firm as any brain I ever dissected.

Now, how far do the appearances which we observed on dissection throw light upon the case ? It appears to me clear, that the disease in the anterior lobes was not the consequence of any general inflammatory action in the brain,—else why was not the brain more extensively diseased ? It was unconnected with the affection of the arachnoid, because the arachnoid presented similar appearances in every part of its extent ; and the inflammatory affection of this membrane (which was the immediate cause of death) did not commence, I apprehend, till the 23d, whereas she had been labouring under disease for several months previously. Is it not most reasonable to consider that the unhappy differences which occurred in the family were the cause of the appearances which we observed in the anterior lobes of the brain, and that the effect of this was the state of mental alienation, in which she existed for the last several months of her life ?”

XLVIII.

BILIARY CALCULI IMITATING ORGANIC AFFECTION OF THE STOMACH. By M. BRICHETEAU.

Case. A BOOKSELLER, aged 67 years, of good constitution, but of bilious temperament, had led an active life, chequered, of late, with many reverses of fortune, and those of the sombre cast. In the month of April, 1828, he experienced, for the first time, acute pains in the umbilical region, for which fomentations and leeches were employed,

and with temporary relief. In the night of the 19th, 20th, he was in great sufferings for five or six hours; but they were relieved by liniments containing a considerable proportion of laudanum. A day or two afterwards M. Bricheteau carefully examined the abdomen, and found that the epigastrium was very tender on pressure, and offered unnatural resistance in the region of the pylorus. This exploration induced the author to fear that there was some organic affection of that part. These fears were augmented when the patient informed the Doctor, that he experienced a sense of weight in his stomach after food, succeeded by nausea, and even vomiting. These vomitings occurred at various intervals after eating, and often consisting of dark and viscid matter. Various means were tried, with little effect; and the patient continued to suffer till the month of July, 1829, when an unusual violent attack caused M. Bricheteau to be again summoned. The tenderness on pressure was now more in the right hypochondre, and the pain seemed to radiate thence to different parts of the abdomen. M. B. now began to suspect that the cause of the sufferings might probably be biliary calculi. His diagnosis this time was confirmed by the discharge of a great number of biliary concretions by stool, a few days afterwards. They were analyzed by M. Chevallier. The accessions, however, returned once in the week for eight or nine weeks in succession; and each time there was a discharge of biliary calculi. The attacks then ceased entirely till the month of June, 1830, when he suffered very severely in the usual way, and a considerable number of calculi were discharged by stool. After this his health was re-established completely.—JOURN. COMPLEMENT.

It is not a little remarkable that no yellowness of the skin is mentioned by the author in any of these numerous attacks of biliary calculi. We have very little doubt that this phenomena presented itself, though unnoticed by the French narrator.

XLIX.

ACUTE ARTERITIS. LA PITIÉ.

M. CAMUS reports the following case from the wards of La Pitié.

Case. CHARLES TAVA, a negro, aged 28 years, entered the hospital on the 30th December, 1830, for a painful engorgement of the left testicle. Leeches, poultices, fomentations, removed the swelling, and the man appeared to be nearly fit for discharge, when, all at once, he complained of great difficulty of breathing, spitting of blood, and extreme frequency of pulse. Auscultation did not throw any light on the symptoms. Diluents were prescribed. Next day, his condition was still worse. On the fourth day he was menaced with suffocation, and the radial artery was *not perceptible*. And now for the first time the patient was ordered "*une très petit saignée explorative*," and the poor negro expired a few minutes afterwards.

Dissection. The lungs were gorged with blood of a very thin kind, but were every where pervious to air. There were no tubercles. The internal surface of the chambers of the heart was of a livid red colour, especially about the valves of the aorta. This redness extended some way into the substance of the parietes; and also through the aorta and pulmonary arteries, to the iliac bifurcation of the former, and to the capillary extremities of the latter. The internal membrane of the vessels could be easily detached, leaving the subjacent tissues tinged of a red colour. The iliacs and femoral arteries presented a grade of the same tinge. The same might be said of the carotids and subclavians. The cava inferior also shewed a slight appearance of the same kind.

The pathologist will balance between the conflicting opinions of arteries and imbibition *POST-MORTEM*. We forgot to mention that the dissection, in the present case, took place 40 hours after death, and consequently after sufficient time had been given for the colouring matters of the blood to act

forcibly on the vessels containing that fluid. Still it must be recollected the extraordinary violence of the symptoms could not be accounted for by any of the post-mortem appearances, if we except the apparent inflammations of the vessels.

L.

SIR PATRICK DUNN'S HOSPITAL.

MOTIONS AND SOUNDS OF THE HEART.
DR. NAGLE.

OUR readers are aware that we have not become converts to Dr. Corrigan's new theory of the heart's motions and sounds. We are not capitious opponents; but ground our opposition on the evidence of our own senses—on pathology rather than on experiments. We have always been of opinion that PATHOLOGY would prove Dr. Corrigan to be wrong, and a case recently published by Dr. Nagle, in a contemporary journal, bears so much on this subject, that we shall place it before our readers.

Case. "Catherine Langan, aged 32, and married for 14 years, was affected with cough, dyspnœa, and palpitations of the heart, and, occasionally, with copious hæmoptysis. These symptoms commenced before her marriage, and recurred frequently, with more or less severity until the period of her coming under my observation. At that time, three months previous to her death, the pain in the region of the heart was extremely acute, the palpitations very violent, and the other symptoms much aggravated. Percussion elicited a dull sound over a large extent in the region of the heart, the actions of which could be heard all over the anterior part of the chest from the clavicles to the margin of the false ribs, especially on the left side. These were so rapid, tumultuous, and disorderly, as to preclude the possibility of any analysis until the remedies, usual for the alleviation of such symptoms, were employed. The heart's impulse was remarkably strong on the right

and left of the sternum. The pulse, however, in the radial and other arteries was scarcely perceptible! No regular rhythm was, at any time, discoverable in the heart's movements. A number, six or eight perhaps, of comparatively weak and confused impulses followed each other in rapid succession, after which usually came about three—strong, rather regular, and admitting of an appreciable interval between them. The ear felt not then an alternation of soft and rigid impulses, as it did immediately before! The arterial pulse became, evidently, more regular and a little increased in strength during these few beats, but was by no means in proportion to the intensity of the impulse against the chest, with which it was, unquestionably, synchronous, and invariably exhibited the regularities and irregularities of the latter phenomenon. It was hard, wiry, and rapid. When the heart relieved itself, as it were, by these two or three comparatively slow and tranquil motions, then, and only then, a loud bellows-sound was audible between the ensiform cartilage and the margins of the eighth and ninth false ribs of the left side. This soufflet did not extend to the right side, but was traceable on the left to the extent of a few inches laterally from the sternum, and up to about the third rib, approaching which it exhibited an increased intensity. *Repeated observations left no doubt of its being perfectly synchronous with the impulse against the chest and the pulsations in the different arteries examined; and, what is important to observe, that it was substituted for the first of the two cardiac sounds. The contraction of the ventricles was attended with a loud dull sound on the right, with the bellows-sound on the left of the sternum.*

DIAGNOSIS.

From these and other particulars, less important and omitted for the sake of brevity, the following diagnosis was formed respecting the heart:—Hypertrophy with dilatation of both ventricles, extending, in all probability, to the auricles. *Certainly, an obstruction at the aortic orifice, occasioned either by disease of the valves or contraction*

of the aperture.' Having been asked by Dr. Clinton, who frequently visited with me this patient, and to whom I mentioned my diagnosis if I considered the auriculo-ventricular orifices obstructed, I replied that 'there was no phenomenon to warrant even the suspicion of their being so; and that the result of a post-mortem examination would strongly confirm the reasonableness of my objections to the new doctrine respecting the heart's impulse against the chest:—objections which he knew me to have repeatedly urged previous to the publication of Dr. Hope's papers. The patient, affected with general anasarca, dropsy, hydrothorax &c. was admitted on the 4th of February last into Sir P. Dunn's Hospital, where she died in a day or two after. For the following description of the post-mortem appearances of the heart I am indebted to two very intelligent gentlemen, Dr. Nalty and Mr. Sharkey.

AUTOPSY.

Between the pericardium and heart there were no adhesions, nor any lymph effused; the pericardium contained about six ounces of fluid. The heart was enormously enlarged, the auricles and ventricles being exceedingly dilated and hypertrophied, but the hypertrophy in any did not appear proportioned to the dilatation. The hypertrophy and dilatation of both auricles were in proportion to those of the ventricles. The increased thickness seemed to extend to all the valves, which closed, perfectly, their respective apertures. All the orifices, except the aortic one, were not only quite free, but appeared to participate in the dilatation of the cavities. The aortic aperture was very much contracted, and its valves considerably more thickened than any one of the others, which indeed were thought by some to be in a natural state, but adapted to their respective openings."

Dr. Nagle properly observes that, had he formed his diagnosis according to the principles of Dr. Corrigan's theory, he must decidedly have fallen into error. He would have attributed the bellows-sound to an obstruction at the auriculo-ventricular opening, as

it occurred synchronously with the impulse against the chest. But the dissection proved that the obstruction existed in the aortic valves. The case is strongly subversive of Dr. Corrigan's theory.

LI.

ST. THOMAS'S HOSPITAL.

VENEREAL DISEASES.

As opinions have differed so widely for many years upon the important subject of diseases produced by sexual intercourse, and such variance still exists among authors and practitioners of the present day on almost every point connected with their origin, mode of progress, the nature of the different appearances which they assume, and more particularly in the methods of treatment, we have thought a few columns would be well filled in selecting some cases for publication from the venereal wards of this institution, which admit of a greater number of inmates than those of any other general hospital in the metropolis. Examples of the most common form in which venereal diseases daily show themselves are here presented, and from the facts themselves, which are of more interest and value than any observations we can offer, may be derived the sentiments and practice of the surgeons of this hospital.

I. GONORRHEA AND ITS CONSEQUENCES.

CASE 1.—*Simple Gonorrhœa.* John Collins, æt. 23, was received into Job's Ward, Dec. 30th, 1830. Has had a gonorrhœal discharge since Saturday last, the 25th, which was the fourth day after connexion. There is a slight redness at the orifice of the urethra, but no inflammation of the prepuce nor enlargement of the penis. Has some ardor urinæ, which he says is less than it has been, and trifling chordee at night. No sore upon the genitals, nor recent glandular swelling is to be observed. He suffered from the

same complaint nearly a year ago, when one of the inguinal glands became inflamed, which has never entirely subsided, and there now remains some enlargement in the groin—hard, but not tender to the touch.

Ordered by Mr. Green, pil. terebinth. chio. gr. x. ter die.

1831, Jan. 12th. Discharge continues, though in less quantity, with scalding.—Pergat.

19th. The discharge has ceased.

Presented well.

CASE 2.—*Gonorrhœa from the Vagina.*—Mary Collins, æt. 15, admitted into Magdalen's Ward, under Mr. Green, Nov. 25th, 1830. Has had gonorrhœa for three months which is now rather profuse, but, as generally happens in the female, is productive of but little pain. Ordered to inject the decoction of tormentilla twice in the day.

Dec. 1st. Discharge somewhat less. A bubo has formed in the groin, tender and painful, but without discoloration of the integuments. The lotio plumbi to be applied to it. Injection continued.

9th. Gradual diminution of the discharge. Patient has piles which are now enlarged and painful. Ol. ricini. Pergat.

17th. Discharge is at an end, and the enlargement in the groin has quite subsided.

23d. Presented.

CASE 3.—*Gonorrhœa, combined with Warts on Glans Penis.* James Drind, æt. 25, a patient of Job's Ward, Dec. 9th, 1830. He has six or seven small and smooth warts on the front and upper part of the glans, with one or two upon the prepuce; also a scanty gonorrhœa, which has continued for nearly two months: neither sores nor enlargement in the groin—warts not painful. It is about six weeks, he says, since they first appeared, and they have gradually acquired their present size, which is that of common shot. His bowels are open, and he has no other cause for complaint.

Ordered, mist. copaibæ, ʒjss. ter die.—The muriate of antimony to be applied daily to the warts.

Dec. 16th. Warts much less—discharge has nearly terminated.

23d. Gonorrhœa cured. The warts are now destroyed to a level with the surface of the glans, and the vestiges of their base are alone perceptible. The man quitted on this day.

CASE 4.—*Gonorrhœa combined with Warts.* Wm. Slater, æt. 20, admitted, Jan. 6, 1831, into Job's Ward. There has existed for seven days a gonorrhœa, which is now profuse. On the inner surface of the prepuce and under part of glans, near to frænum, several rough warts are placed of three months' duration. There is also considerable swelling of the foreskin, with redness. No glandular swelling in the groin—no ulceration on the penis. Mr. Green directed the warts to be removed by the scissors, and the sulphate of zinc lotion to be applied around the extremity of the penis.

Mist. copaib. ʒjss. ter quotidie.

Jan. 12th. Some of the warts on the under surface of the glans have been cut off, and the quantity of urethral discharge is diminishing.

27th. The greater number of the excrescences have been snipped off, and the others have been got rid of by the butter of antimony.

Discharge removed.

He left the hospital at this time.

CASE 5.—*Gonorrhœa, Warts, and Swelling of Knee-joint.* Nov. 25th, 1830. Elizabeth Walsh, æt. 20, admitted this day, having a sparing gonorrhœal discharge from the vagina, and some small warty excrescences on the outer side of the left labium pudendi, but no ulcers nor glandular swelling. She has not menstruated for three months, and there are pains of the head in consequence.

Ordered to have liq. aluminis comp. as an injection, and to take mist. sennæ co. p. r. n.

Nov. 29th. The right knee-joint is attacked with pain and puffy swelling in front; the joint is generally enlarged and hot, and pain is increased on the slightest motion.—An attack similar to the present articular

affection was experienced by this patient about three weeks ago.

Hirudines xx. genū, and spirit lotion.

Dec. 1. Pain and swelling of knee rather less, but heat and tenderness continue. Discharge from vagina very perceptibly diminished. Sleeps none at night. Lotion continued.

4th. Knee-joint somewhat less swollen, but the pain persists. No heat of surface. Cat. panis.

6th. Much relief has been derived from the poultice, and the swelling about the knee has a good deal declined. Same remedies.

10th. Knee easy, and swelling has much abated. She has pains in other joints of the body, and is very restless at night.

Mr. Green prescribed cal. gr. j. Pulv. ipec. co. gr. iij. o. n. Fever diet.

14th. Pains nearly gone. Some feverishness has been present, but the surface of the body is now cool, and the knee-joint is free from pain or other symptom of disease.

Omittr. cal. et pulv. ipec. co. House diet resumed.

21st. Experiences pain from the warts, which are touched with the muriate of antimony. No gonorrhœal discharge.

31st. Warts less.

1831, Jan. 6th. No remains of the warts.

13th. Presented.

The application of muriate of antimony seldom fails in destroying warts on any part of the penis, or female organs of generation, that have not attained an unusual magnitude and degree of hardness.

II. INFLAMMATION OF TESTICLE.

Case 6. W. Bryant, æt. 30, admitted into Isaac's Ward, under Mr. Green, Nov. 11th, 1830. Three weeks ago a gonorrhœal discharge commenced from the urethra, and upon this there quickly supervened inflammatory swelling of the left testicle, he not refraining from active exertions when the discharge had appeared. He states that the urethral flux was not affected in any way by the swollen state of the testicle.

No internal remedies have been used, with the exception of a dose of salts, nor any local applications. The testis is enlarged nearly to the size of the fist, being greater below than above. It feels firm to the touch, and somewhat hard, especially at the ack and upper part, including the epididymis; there is not much tenderness; the spermatic chord is considerably enlarged, indurated, and tender, this state extending to within the inguinal canal. There is a good deal of external redness and heat, and the scrotum covering the enlarged gland is tense. He has no pain in the loins, and none of importance now exists in the organ itself. There yet remains some discharge from the urethra, thin and not having much the appearance of pus. No constitutional disturbance. Bowels regular—tongue clean and moist—pulse 64, small and feeble. The man is tall—about 6 feet 2 inches.

Nov. 12th. Was visited by Mr. Green, who ordered—

Cal. gr. j. Ant. tart. gr. 1-4. Pulv. opii, gr. j.—M. ft. pil. o. n. sumenda. Mist. sennæ c. cochl. iij. quotidie. Hirud. xv. Catapl. panis.

13th. Swelling, pain and tenderness diminished in the testicle. He has slept well, and his bowels are freely opened by the medicine.

15th. Testicle more soft—scrotum free from tension, and a great deal of redness—little pain on pressure—chord also less, and deprived in a great degree of its indurated feel.

17th. Still becoming less—no hardness, except in epididymis and back part of testicle, and also in the spermatic chord. The latter is, however, reduced in size, and not tender under pressure. The discharge from urethra has increased, which may be regarded as a counter-irritant.

20th. Mouth not yet affected by the mercury, but the swelling and hardness are gradually decreasing.

23d. Soreness of the gums since yesterday. Testis reduced to nearly its natural size; and the chord, though much less, feels hard, but is not tender. Mr. Green ordered

the calomel to be omitted ; and as the gonorrhœal discharge was copious (having very perceptibly become more and more profuse) pil. tereb. chio, gr. x. ter die. The discharge was allowed to proceed hitherto, as it was considered likely to act by counter-irritation upon the testicle. Mercurial ointment, spread on lint to be applied over the testis.

25th. The gland has become of nearly its natural size, and the hardness at the upper part and epididymis continues to decrease.

At the patient's particular desire he this day left the hospital, a few days earlier than he would have been regularly discharged, since all disease was not completely removed.

Case 7. Hugh McCleod, æt. 25, taken into Job's Ward, Dec. 23d, 1830. Inflammation has taken place in the left testicle since the 20th, and it is now enlarged to twice its natural size, being hard and tender to touch. The surface of the scrotum investing it is red and heated—there is a very slight thickening of the spermatic chord—he has some lumbar pains, but very little in the gland itself. Pulse is full and hard, 100—tongue white—some nausea and thirst, with loss of appetite—belly costive. Gonorrhœa, which began about a fortnight since, now continues, but the discharge has very manifestly decreased since the testis has been affected ; it is thick and purulent, though slight in quantity. When seen by Mr. Green on the 24th, he was ordered V. S. ad 3xvj. and the following twice a day in the form of a pill. R. Cal. gr. j. Ant. tart. gr. 1-4. Pulv. opii, gr. 1-4. M. Hirud. xij. Cat. panis. Fever diet.

Dec. 28th. Pulse still full and active, pain increased in testis, and also in the loins—no change, with the exception of less redness of the scrotum, is to be observed in the inflamed organ. His bowels are costive, and the tongue white and furred.

V. S. ad. 3xij. Capiat pil. ter die. Mist. æn. c. p. r. n.

29th. The pain in loins being aggravated, blood was taken from that part by cupping, and he has found relief from the operation. The blood drawn on the first occasion had

a slight buffy coat, but of this there are no traces in the present vessel.

31st. No pains of loins or testicle. The latter is much reduced in bulk, and there is less tenderness. The gums are slightly sore. Calomel omitted.

1831, Jan. 5. Testis nearly of natural size ; it is free from tenderness and heat, and no induration can be felt either there or in the spermatic chord.

8th. The part to be covered with empl. saponis. Gonorrhœal discharge is still rather profuse.

10th. Pil. tereb. chio. gr. x. ter die.

19th. Discharge has nearly terminated, and what remains is thin and watery.

Was to-day presented, but ordered to continue the turpentine some little time longer.

III. SIMPLE OPHTHALMIA AND RHEUMATISM, CONNECTED WITH GONORRHOEA.

Case 8. William Green, æt. 63, admitted into the Eye Ward of Saint Thomas's Hospital, Jan. 13th, 1831, under the care of Mr. Green. There is slight ophthalmia of both eyes, accompanied by very indistinct vision, pain in the orbits and brows, and a dilated and sluggish pupil. He is unable to assign any direct cause for this attack, but when we mention he has had gonorrhœa for the last four weeks, it may perhaps be attributed to this source. The discharge from the urethra continues, and although purulent, is unattended by any local inflammatory symptoms ; there is, however, some pain in the loins. No purulent matter is yielded by the conjunctiva, the surface of which indeed is scantily moistened with tears ; the membrane itself is not thickened from vascular turgescence, and the cornea is clear in each organ. His pulse is 120, hard and full—the tongue white and furred, and he is thirsty. Mr. G. ordered cupping from the nape of the neck to 3xij. A shade to be worn. Poppy fomentation. Cal. gr. ij. Ant. tart. gr. 1-4. t. d.

Jan 16th. Pulse 110, softer. Inflammation of conjunctiva is considerably abated, and ; together with the pupils having become

more active, sight has improved. The gums are slightly tender, and he is rather feverish from this cause. Calomel to be taken at night only.

21st. Complaints of pains, apparently rheumatic, situated in the joints of the upper extremities, and in the loins. The vision has increased, and the inflammation of the conjunctiva is subsiding. Pulse not augmented in fulness nor frequency, but is rather hard. Ordered, cupping from the loins to 3xvii. Hydr. c. cretâ, gr. iij. Pulv. ipec. c. gr. iij. M. t. d. Milk diet.

Jan. 25th. The discharge from the penis ceased immediately after the cupping in the lumbar region, in which situation the pain is also much less. His rheumatic pains in the limbs continue, though not so severe. Sight is perfectly good, and the eyes appear only what is termed "weak." He rests ill at night, and the pains of limbs become aggravated so soon as the surface is warm. To rub the linim. ammon. into the arms and legs twice a day.

27th. Pains of limbs are somewhat diminished, and he slept better last night. Pulse 100, not quite soft, but small. Bowels open.

1st Feb. Has less pain, and his pulse is at 96, soft—gums tender. Pil. o. n. Extr. sars. 3j. Ex. decoct. sarsæ, ʒvii. bis die.

5th. There is slight ophthalmia from cold, but the pains of limbs have ceased. The gonorrhœal flow from the penis has returned.

6th. Ophthalmia does not exist to-day; the urethral discharge is increasing.

8th. Discharge from urethra more copious, and the rheumatic pains have almost entirely vanished. Pulv. cubebæ, 3j. Ex. decoct. sars. ʒiv. t. d.

14th. No discharge from the penis, and no pain exists in the loins or extremities. He continues his medicine.

22d. The gonorrhœal secretion has once recurred since last account, but is now in very small quantity.

Was to-day presented, and is to continue the cubebæ for a week.

Two cases of purulent gonorrhœal ophthalmia are detailed in the *Fasciculus* of this Journal for March, 1829, taken from the practice of Mr. Travers and Mr. Green.

IV. PRIMARY SYPHILIS.

CASE 9. *Chancre on Prepuce.* Daniel Morby, æt. 20, Job's Ward, Dec. 2d, 1830. Has a small circular sore on the upper part of the prepuce, where this becomes continuous with the skin of the dorsum penis, which first appeared three weeks ago in the form of a minute pimple, and this soon breaking with a little discharge of matter, the present ulcer was established, the characters of which are as follows. It is circular, as we have before said, and has a smooth and rather shining surface—has no elevated edges, and consequently does not appear deeper than from simple loss of integument by ulceration; there is trifling hardness at the base. A thin and scanty discharge takes place from the surface. The pain arising from it is very insignificant; what he does feel he describes as rather itching, or pungency. He has no gonorrhœal discharge, nor glandular enlargement in the groin. General health not affected. Bowels costive.

Ordered to rub in Unguent. hydr. 3j. four nights in the week. Lot. nigra to the sore. Mist. sennæ co. p. r. n.

Dec. 12th. Chancre but little altered in appearance. It seems to have spread in a slight degree, and to have some raised edges more perceptible.

18th. No increase of size in the sore.

23th. Sore has healed, and hardness remains on the spot.

1831, Jan. 6th. He continues the mercurial frictions, but the mouth does not seem yet affected. Cicatrix no longer feels hardened.

8th. Has tenderness about the fauces and gums investing the molares 8th. There is, however, no turgidity nor spanginess. The friction omitted.

11th. Left the hospital free from disease.

CASE 10. *Chancres on Prepuce.* John Connell, æt. 19, came into the hospital on the 3d December, 1830, under Mr. Green, having two large chancres on the right side of the prepuce, which cannot be drawn back over the glans in consequence of incomplete phymosis, (the point of the glans can

be seen in endeavouring to denude it,) which appears to have been congenital. The chancres originated nine weeks since, seeming to him in the first place nothing more than red and angry pimples; ulceration shortly set in, attended with considerable local pain, and has extended slowly, but progressively, to its present dimensions. A little space intervenes between the borders of the two. The one nearer the extremity of the penis is almost an inch in length, beginning on the upper part of the preputium, adjoining to the centre of this, taking a transverse direction to the under surface, where it terminates close to the median line, or raphè in this situation, and thus occupying one side alone of the penis, all encroachment upon the opposite being apparently singularly prevented. It is much narrower in width, which is about a quarter of an inch. The other, placed behind, but still on the same half of the fore-skin, is nearly circular in shape. Both have defined edges, and a dry yellowish surface, no granulations being visible. Their bases are not hardened. No swelling in the groins, nor discharge from urethra. Has hitherto applied black-wash and poultices.

Ordered to rub in mercurial ointment, as in the preceding case.

Dec. 10th. Sores rather spread, and their surface is foul, there being a more plentiful and thick discharge of matter. Though wanting the hard base, which is to be regarded as the most decisive characteristic of chancre, Mr. Green considered them to be venereal, or syphilitic, and that they would heal under the use of mercury. Lot nigra.

14th. Some redness has existed around the ulcers, but it is no longer visible. No pain in the ulcers, whose appearance is not changed.

21st. Ulcers reduced in size and cleaner, though not yet having lost their yellowish surface. No effect upon the mouth.

28th. One of the sores has healed, and the other is nearly well. Continues the lotion and the rubbing in.

1831, Jan. 4. Both sores healed, and have left large cicatrices. Mouth not yet touched.

8th. Gums tender and spongy—secretion of saliva slightly increased. No induration in the situation of the recent chancres. Omit the frictions.

11th. Left the hospital this day.

CASE 11.—*Chancre on Labium Pudendi.* Jane Barn, æt. 21, admitted Nov. 18th, 1830. Has a circular ulcer on the right labium pudendi, the size of a silver penny, which first attracted her notice three weeks ago. Its circumference is well defined, and, as well as the sore itself, is in some measure elevated above the surrounding surface. The base is indurated; it is of a yellowish tinge in the centre, to appearance from the secretion, which is thin, and it here seems slightly excavated. The parts adjoining are inflamed and tender. There is no gonorrhœal discharge. Some enlargement of a gland in the groin, which feels hard, and was larger a short time since than at present. Constitution bears little marks of injury. Ordered by Mr. Green, ung. hyd. 3j. to be rubbed in four nights in seven. Lot. nigra and cat. lini to the sore.

Nov. 22d. Rather more inflammation exists in the neighbourhood of sore, but this is not increasing. Patient's rest at night is good, she suffering very little pain from the chancre.

27th. Inflammation has subsided, and the ulcer looks well. She complains of pains in her limbs and joints from cold.

Dec. 2d. Sore healed, but the swelling and hardness in the part have not yet become dispersed.

Dec. 10th. Gums a little tender, and spongy. Some slight enlargement of the integument remains in the situation of the healed chancre. Ordered to wash up after to-morrow night's friction.

17th. Presented well.

CASE 12.—*Chancres on Prepuce, and Bubo.* Francis Whitford, æt. 18, a sailor, was admitted into Job's Ward, under Mr. Green, Nov. 4th, 1830. He has two chancres situated on the posterior surface of the prepuce to the left of the median line, one of which first presented itself in the form of a pimple or head, as he says, six weeks ago, and about a week after sexual intercourse.

They are situated close together, their edges nearly coming in contact, and are on a line with each other. That nearest the extremity of the prepuce is small, and much less than the other, being not larger in circumference than a pea. It appeared a fortnight later than the greater one; this exceeds a sixpence in size, has a distinctly circumscribed border, which is elevated, notched, or denticulated, and possesses surrounding hardness. A layer of yellowish white lymph is at the bottom of each, but they are in a very inconsiderable degree excavated. Two weeks from the present time a bubo formed in the groin on the same side, which soon broke and left an ulcerated surface, approaching in general appearance and character to those of chancre, but it is deeper than a primary venereal sore, though situated more towards the medial line of the body than buboes usually are. This ulcer is rather circular, and has a margin elevated and abrupt. His constitution, he tells us, has suffered very materially from the irritation of the disease, and the pain he feels in the sores is, and has been considerable.

Nov. 6th. Was visited by Mr. Green, and no change having taken place under the use of poultices and the black lotion, he ordered Cal. gr. j. Ant. tart. gr. ʒ. Opii, gr. j. o. n. Mist. senn. c. cochl. iij. quotidie. Lotion and cat. lini continued. The above quantity of opium was prescribed in consequence of want of sleep at night, which is frequently the case in primary sores, even if there be no unusual appearance of inflammation locally.

12th. Ulcers have nearly the same aspect; that near the groin has become more painful, and there issues from it a profuse thin watery secretion. Capiat pil. bis die. The chloride of lime-wash in lieu of the lotio nigra, to the sore near the groin, which has rather a more foul surface.

14th. Sores cleaning, and displaying some minute florid granulations; at bottom of larger sore they are more conspicuous and tend to fill up the cavity.

16th. No effect of the mercury is perceptible in the gums. Ordered to use ung. hydr.

3j. four nights out of seven, and to discontinue the calomel. Local applications as before.

22d. The smaller sore on penis has healed, and the other nearly so; that in the neighbourhood of the groin is likewise contracting, and the granulations of it are florid and coalescing; in its centre there is no longer any hollow. The mercury has yet produced no effect upon the mouth. A slight pimply eruption has made its appearance during the last week upon the chin and forehead; the tonsils have been enlarged and painful, and are now diminished. A small ulcerated surface which looks quite healthy and has no specific character, being quite superficial, is to be seen on the right amygdala.

27th. Larger sore on penis nearly cicatrized, and that in groin less since last report—throat still painful from enlargement of the tonsils—gums not affected.

Dec. 1st. The remaining sore is now quite healed, and that on the groin is healthy and very much diminished.—Some hardness is felt around the cicatrices.

7th. Sore left in the groin is reduced to the size of a silver penny. He has a slight coppery taste in the mouth, with tenderness of the gums in front of the lower jaw.

14th. Sore well, and the gums are in some degree turgid and spongy.

21st. Gums sore—no salivation.—Swelling of tonsils has completely subsided, and he is able to swallow freely. The eruption which was noticed on the 22d has rather increased, and is of the nature of acne; it is seated principally on the face, and is also on the arms and chest. Mercurial friction to be now omitted. To take decoction of sarsaparilla, a pint, three times a day.

Dec. 30th. Left the house well.

CASE 13.—*Chancres and Bubo.* Daniel Hennesey, æt. 18, admitted under Mr. Green, February 3d, 1831. A foul circular ulcer exists in the situation of the frænum, the size of a silver penny, and from this towards the apex of the glans proceeds a line of ulceration, of the same foul character,

terminating in a larger and more roundish form. These ulcers are of three weeks' duration; their surface is of a blackish colour, and afford an abundant and thin secretion. Very little pain is present. A great and hard bubo has taken place within the last fortnight on the right side. No discharge from the urethra. Ordered unguent. hydr. 3j. four times a week. Mist. sen. c. p. r. n.

Cat. lini. Lotio nigra.

Feb. 14th. Sores have rather increased in dimensions, but their surfaces are cleaning, and already exhibit some granulations.

2d. A clean granulating surface is now displayed, from which a copious discharge of pus flows. Lotion alone used.

March 1st. Ulcers quite florid, but have not diminished. Gums not affected.

12th. Sores healing gradually—that upon the glans still communicates with the one upon the frænum and internal surface of prepuce by the same line, which is proportionally contracting.

22d. Ulceration only remains behind the glans. No mercurial effect yet manifest.

April 5th. Chancres have been healed for some time, but the cicatrices till now have been hardened, and the inunction therefore continued. For the last ten days some affection of the gums has become more and more manifest. He is now ordered to relinquish mercury.

7th. Presented well.

A kind of chancre, precisely similar to the foregoing, we will again relate in

CASE 14.—*Chancres and Bubo.* Michael Doyle, æt. 25, received into Job's Ward, Feb. 3d, 1831. There is a circular and unclean sore upon the frænum, having some hardness at its base, which commenced about a month ago, and has been slowly increasing. Upon the glans also there is a narrow streak of ulceration, proceeding from the same sore towards the apex. A bubo has existed in the right groin for a fortnight, which is hard, and not fluctuating, nor discoloured. Ordered Cat. lini. Lot. nigra.

Feb. 14th. Some diminution is noticeable

in the sores, and they have become cleaner. Bubo is suppurating, and the swelling more prominent.

18th. Bubo has been laid open by a free incision, and the sores on the penis have healed. To rub in ung. hydr. 3j. as often as in the preceding cases.

26th. Ulcer in the groin cleaning, and there is a profuse discharge of brownish pus from it.

March 4th. Healthy granulations are springing up from the bottom of the ulcer, which is hollow, and the edges overhang, but no burrowing of matter has occurred.

12th. Edges of the ulcer are less inverted, and the hollow space is nearly filled up. Hardness of the cicatrices on the penis has been perceptible, but seems declining.

22d. Ulcer considerably reduced and clean—no induration in the cicatrices. Rubbing in now left off. Black-wash to the groin.

April 7th. The edges of the inguinal ulcer have been pared, and this has now cicatrized. Was to-day dismissed, well.

CASE 15.—*Chancre under Fore-skin—Bubo.* John Harewood, æt. 20, Job's Ward, admitted December 16th, 1830. When the fore-skin is reflected from the glans penis, a sore is found to exist, which cannot however be completely exposed from partial phymosis, the prepuce being swollen, and rather red. The part of the sore that is visible has a clean and even surface, very little discharge is afforded by it, and in taking up the fore-skin in this situation between the finger and thumb, very considerable hardness is felt for some distance around it. A good sized bubo has formed on the left side, and the integuments over it are hot and discoloured. He first perceived the sore a fortnight ago, and the bubo three days afterwards. There is no discharge from the urethra. Ordered ung. hydr. 3j. four nights out of seven. Hirud. xij. to the groin. Cat. lini, and the black-wash to the chancre.

Dec. 23d. Less swelling of the prepuce, and less pain from the sore.

31st. No phymosis now exists, all swelling having subsided. A sore is exposed on the inner surface of the prepuce, near the corona, in a healing condition; its surface is rather prone to bleed when the dressing of lint and black wash is removed, and it is surrounded by hardness at its base—in short it has the character of a syphilitic ulcer. Bubo greatly subsided, and no longer inflamed; it feels hard and firm to the finger, but is not tender.

Empl. ammoniaci, c. hydr. to be applied to it.

1831, Jan. 8th. Bubo nearly removed.—Pergat.

14th. Mouth sore, sponginess and slight ulceration of the gums being manifest. The swelling in the groin is more dispersed—chancere cicatrized, and no hardness remains.

19th. No swelling exists in the groin. He omitted the frictions on the 15th.

Presented this day.

V. SLOUGHING CHANCRES.

CASE 16.—*Sloughing Chancre, accompanied with Retention of Urine.* Thomas Cider, æt. 32, applied at the hospital Nov. 15th, 1830, late in the evening, suffering great pain from retention of urine. He stated that he had not passed any urine by the penis for more than 24 hours, but there was evidently no great deal contained in the bladder, as there was a want of swelling and distention above the pubes. The man was pallid and faint, and the surface was rather cold and clammy. A narrow slough, an inch in length, was hanging from the extremity of the penis, but as phymosis existed, with a swollen and red state of prepuce, its attachment and source, or the state of the glans could not be seen. There was a pretty free discharge from the penis, of a purulent kind, and it was soon ascertained that he had applied here for admission on the preceding Thursday, with a chancre at the orifice of the urethra, and also another on the corona. A catheter was introduced into the bladder without difficulty, or causing unusual pain, and rather a large quantity of water was drawn off, perhaps a pint and a half. He

was then ordered to bed and a poultice to the penis.

16th. Slept for some hours, and has made water twice without impediment. End of penis somewhat less inflamed, and there is a free discharge from it. Pulse 100, rather sharp—tongue a little white. A dose of house-physic was given to open the bowels.

18th. Has been quite free from pain, and made water by his own efforts easily—pulse 90—bowels open.

21st. The slough separated to-day; the inflammation is less, and the discharge very profuse. There is still sufficient swelling of the prepuce to prevent exposure of the glans.

26th. Has gone on well, but the phymosis and purulent discharge are unrelieved.

29th. Prepuce can now be drawn back, and a hollow ulcerated surface is presented to view, which occupies one side of the glans, from the corona to near the extremity of the latter, and from which the slough had separated. Its edges are irregular and rather foul, but it is clean in the centre, and a copious purulent discharge is given off from it. Black-wash applied to it, with cat. lini.

Dec. 2d. The ulcer on the glans has now somewhat of a circular shape, having lost the sloughy edges, and these are easily defined. The sore itself is contracting in size daily; its surface is covered with florid and healthy granulations, and good pus is discharged from them. Patient's health has not in the least given way, and he is at present upon the house-diet. No mercury has been given.

7th. Sore continues healing fast. Poultice omitted—black lotion on lint.

12th. Sore quite healed, and no induration is to be felt in its situation, except that from an ordinary cicatrix.

16th. Presented well.

CASE 17.—*Sloughing Chancre destroying the whole Penis.* Charles Fardrell, æt. 30, admitted late at night on Tuesday, Dec. 7th, 1830. The glans and greater part of penis, to within an inch of its root, are destroyed by sloughing, being black and much dimin-

ished in size, end appearing as if retracted within the integument of the lower part of penis, which is nearly preserved entire.—This is red, and its extremity (which forms that portion of the prepuce) being destroyed, the termination of it is irregular and truncated, and the edges of it are also sloughing. There is a very slight discharge from between the dead and sound parts of a purulent kind, and no line of separation is distinctly discernible. His urine now passes freely and without pain, and makes its appearance externally in the centre of the destroyed glans, that is, behind the natural situation of the opening of the urethra.—The face is very red and hot; the patient has been accustomed to drink hard, but not much of spirits. Pulse full and hard, 120—tongue white and dry—bowels, he says, are open. He is at present suffering severe pain, but this has been more intense than now. We learn from him, that, three weeks ago, a sore formed under the foreskin, small and circular, which rapidly increased in the space of a week, to the size of a sixpence; phymosis then ensued, with redness of the parts. He has no doubt neglected himself, and the sore spreading whilst thus confined by the foreskin, sloughing commenced, on Friday evening last, in the upper part of the prepuce, without any further cause that he can assign, and has proceeded upwards to its present extent. On Saturday morning, he describes the end of the prepuce as “breaking,” and a profuse thick and black offensive matter escaped. Sixteen ounces of blood were taken from the arm immediately; the part carefully supported, and a poultice applied, with *lot. chlorid. calcis*.

Tinct. opii. ℞xl. two hours later.

Dec. 8th. Very little sleep obtained in the night—face flushed, and of a dark red colour—pain has been very great—sloughing rather increased, no limit to be observed—blood buffed and cupped—pulse 120, not so full nor so hard. Was seen by Mr. South, who directed xxx. minims of tincture opii at night; the chloride wash to be continued, and a stale beer ground poultice used.

9th. Sloughing somewhat extended, and no abatement of pain—he got little or no

sleep in the night from the opiate—pulse and tongue as yesterday—at no period has there been much heat of skin, and the surface is now temperate.

Tinct. opii, ℞xxx. at night—local remedies the same.

10th. The dorsum of the penis is destroyed as far as half an inch from the root—the sound skin is less red, and the sloughs appear inclined to separate from its edges—pain rather less, and he obtained a little sleep last night—face not so red and heated—pulse 120, sharp and hard—bowels open.

Mr. Green prescribed *Pulv. ipec. co. gr. iij.* *Mist. pot. citr.* ℥jss. 6tā q. h. Fever diet, with beef-tea.

11th. Pulse less full and not so hard, 103—skin moist. The extent of sloughing is now defined, and the dead portion seems likely soon to come away—tongue clean and moist. He takes his beef-tea, and has not been so restless.

12th. Slough nearly separated. Patient is more desponding, and the pulse is rather hard and more frequent.

13th. Pulse 120. Urine has passed hitherto without pain or obstruction; it is at present voided with equal facility from below the sloughy portions, which are more nearly cast off.

14th. The parts have separated, and a tolerably clean surface is left. The urine is passed freely from the opening of the urethra, which is situated about half an inch from the root of the penis—there is no thirst—the pulse 120, more feeble.

Mr. G. prescribed *Ammon. carbon. gr. v.* *Tinct. opii*, ℞v. *Mist. camph.* ℥jss. 6tis horis. Port wine, ℥ij, daily. Sago and syrup.

17th. Surface cleaning and granulations are visible. No further loss of substance has taken place since the separation of the sloughs—pulse 120, fuller, and possesses some sharpness—tongue white and rather dry—skin moist, but warmer than natural—face more flushed on one side. He has rested better of late, and his bowels are open. Beef-tea and former remedies.

21st. Pulse 120, stronger—surface of wound cleaner than at any former period, but very painful when exposed—patient

sleeps tolerably well. Has been taking opii, gr. j. ter die, since the 18th, and has arrow-root allowed in addition to the other nutriment.

24th. At the upper part of the wound there has formed a small slough, which will shortly separate. The ulcerated surface looks healthy, and yields a copious discharge. The remaining portion of the penis has contracted considerably in size. The patient's general condition is favourable, as before.

29th. Farther contraction has taken place in the sound portion of the penis, and this has rather a shrivelled appearance. Some part of the slough, at the upper part of the wound, has been discharged amidst the very profuse secretion of pus; and the extent of the wound itself is a good deal reduced, its surface below the sloughing point being quite healthy. The urine flows without impediment through the aperture of the urethra in the centre of the sore, and without pain—strength of the patient is rather diminished, but his face is still red, though not flushed, and the pulse is at 110, though smaller and more feeble—tongue clean and moist—he takes beef-tea and milk—is much distressed in spirits.

Mr. Green ordered Quin. sulph. gr. ij. Inf. ros. comp. ℥jss. t. d. Continue the poultice and chloride.

31st. All the sloughs, from the circumference of the wound near the pubes, are thrown off, and the wound itself is decreasing. A very plentiful discharge continues. Ordered opii, gr. ij. o. n., as he has latterly obtained scarcely any sleep, and the draught, with Dover's powder three times a day, to be omitted. Calomel and lime-water substituted for the chloride of lime. The opium pill thrice daily is of course to be taken no longer. Porter, ℔j. daily.

1831, Jan. 7th. Wound has gradually contracted, together with the remaining part of the penis. A small slough has recently formed in its centre—pulse still 110, rather feeble.

11th. The small slough has been detached; contraction of the parts is progressive, and the surface of the wound healthy. Pulse is unaltered; the tongue moist and tolerably

clean. Continues the medicine, wine, beef-tea, &c.

14th. Wound gradually diminishing, and cicatrizes most favourably. His rest at night is very bad, and the appetite delicate. Loathes his beef-tea, but can take a mutton chop. Mr. Green directed the opium to be discontinued at night, as he thought the patient might probably be able to sleep better without it, having been so long continued; and his porter to be taken with his supper.

R. Inf. calumb. ℥jss. Conf. arom. ℥j. Tinct. calumbæ, ℥j. M. ter die.

18th. Complains more of the want of sleep, but in other respects he is progressively getting better. Ordered to resume the opium at night.

20th. Bronchitis came on last night, accompanied by very abundant expectoration. The pulse was very rapid and feeble; he was visited by one of the apothecary's apprentices, who was fearful of using the lancet in the present condition of the patient and prescribed a blister to the chest, and exhibited antimony in moderately large doses. The patient is now quite free from pain, and has experienced less difficulty of breathing since the blister was applied. Cough is only present when the mucus requires to be got rid of, and it is not painful—pulse 140, weak—the expectoration seems to collect about the bronchia, and the patient unable to throw it up, from debility.

Jan. 21st. Pulse 140, irregular, and very feeble. Bronchitis has increased, and the man is much weaker. Dr. Elliotson saw him about three o'clock this afternoon, and confessed himself quite at a loss how to act, seeing, on the one hand, that the disease, if allowed to proceed uncontrolled, would destroy life, and, on the other, that there was not strength remaining in the system, to bear the means necessary to subdue the inflammation going on within the chest. He, however, ordered bleeding ad deliquium; three grains of opium to be given immediately afterwards, and five grains of calomel every three hours. Forty ounces of blood were drawn, though, unfortunately, not in so large a stream as could be wished, and

then true syncope was not induced, although the man was sitting up in bed. After the bleeding the poor fellow felt confident he should soon get better, but his powers gradually failed, and he died, without pain, and retaining perfect consciousness to the last, at half-past three o'clock on the following morning.

An examination of the body was not allowed by the friends of the deceased.

This severe pulmonic attack was unexpected, but from the first few hours a fatal termination was anticipated in the enfeebled condition of the patient's mind and body. Nothing, however, could be more successful than the detachment of the sloughs from the genitals, and the ulcerated surface at the time of death was perfectly clean and cicatrizing.

It will be seen that mercury was not employed in either of these two cases. In consequence of the rapid destruction of substance it is supposed that absorption of the poison of lues seldom takes place in the sloughing chancre, and certainly secondary symptoms following this sore are uncommon, so rare indeed as to warrant us in not resorting to this mineral until they do appear, which after all will be the fittest period for the interposition of the remedy.

VI. COMBINATION OF GONORRHEA AND SYPHILIS.

CASE 18.—*Gonorrhœa—Chancres—Phymosis.* Nov. 25, 1830. John Bloye, æt. 19. We observe phymosis, and great swelling of the prepuce, which is slightly reddened, and the integuments are so much enlarged from effusion of serum that it is impossible to discover whether any chancres exist beneath the foreskin by external examination. He has been unable to expose the glans for nearly a fortnight. There is a profuse gonorrhœal discharge of three weeks' standing. No external sore, and the glands in the groin are not enlarged. Ordered—to inject the lot. plumbi around the glans under the foreskin—pil. tereb. chio. gr. x. b. d.

29th. Inflammation of the prepuce less, and the discharge also diminished—has

slight superficial ulceration on right tonsil, rather circular, but still devoid of specific character, for which a gargle of chloride of soda is directed.—Pergat.

Dec. 3d. The ulcer in the throat is healing, and less soreness is complained of by the patient. Phymosis not so painful, and the enlargement is a good deal reduced.

6th. Swelling at the end of penis has abated considerably, but the glans cannot be denuded. At the pointed extremity of the prepuce there is considerable hardness, and also near the frænum on the left side of the penis, a circumscribed induration is to be felt, in both as if from chancres. Ordered to rub in unguent. hydr. 5j. four nights in the week.

14th. Hardness on left side of penis more distinct, in consequence of the inflammation of the prepuce disappearing, but this part cannot yet be drawn over the glans penis.

21st. No discharge from urethra now remains. The end of the glans can be exposed, and some ulceration is observable on the inner surface of the foreskin when this is retracted, but it is superficial and not in the situation of the hardened spots formerly spoken of, where true chancres still apparently exist. No influence of the mercury is yet evinced in the mouth. To use ung. hydr. 3iiss.

28th. No change worthy of being mentioned is effected in the condition of the penis, nor is there any mercurial action yet noticeable in the system.

1831, Jan. 8th. Patient is still unable to retract the prepuce; no swelling exists in this part, nor redness. The hardness so characteristic of chancres is undiminished in every direction under the foreskin.

14th. No alteration is to be observed in the state of the penis, and the mouth is not affected by the mercury.

16th. Some tenderness of the gums and back part of the jaw is to-day felt, and the hardness in the situation of the chancres is less perceptible, but he is unable to uncover more of the glans.

27th. The induration is much less distinguishable, but some adhesions appear to have formed between the glans and prepuce, as there is no motion between them.

Feb. 1st. Hardness has become gradually dispersed, and it remains only in the trifling degree that a common cicatrix would possess. Ordered to wash up.

3d. Presented well.

Case 19.—*Gonorrhœa, accompanied by Inflammatory Phymosis—Chancres* Edward Dunn, æt. 18, made a patient under Mr. Green in Job's ward, Jan. 6th, 1831. The extremity of the penis is considerably enlarged from swelling of the glands and prepuce alone, as the body of the organ is of natural size and not involved in the inflammation. Great redness is observed in the swollen portion, which is hot and excessively painful. There is complete phymosis. The present inflammation has existed for nearly a fortnight; clap commenced about five weeks ago, and the discharge is now copious. He denies that any ulceration has taken place on the inner surface of the prepuce, or on any part of glans penis. A bubo is situated in the right groin, but is not larger than a walnut, hard, and not inflamed. Mr. Green ordered—mist. sennæ. co. cochl. iij. quotidie. Cat. panis, and lot. plumbi to the penis.

Jan. 12th. Inflammation and swelling are considerably diminished. The redness is also of a less vivid hue.

18th. Has had an attack of pleuritis, which has been treated by venesection, blistering and antimonials. The disease is now subdued. Inflammation of the penis considerably abated, together with diminution of the gonorrhœal discharge.

25th. The swollen and inflamed state of the end of the penis has become so much reduced that a circumscribed hardness is distinguishable between frænum and apex of the glans, produced by a chancre. On the outer surface of the prepuce also some ulceration has taken place on the anterior part, which has an indurated base, but not plainly defined edges. Ung. hyd. ʒj. to be used four times a week.

31st. Hardness is still more distinct near the frænum, now that the swelling is further diminished. The external ulceration possesses a more specific character than

hitherto, and has spread. We are now told by the patient that he did notice a sore on the glans before the phymosis occurred; this latter now continues.

Feb. 5. Sore, externally situated, has put on a clean and granulating surface, and is also less.

15th. The internal hardness is much diminished, and the ulcer has been progressively contracting. No effect yet upon the mouth.

22d. Ulcer perfectly healed; the hardness beneath the foreskin has also vanished, and phymosis no longer remains.

March 11th. Mouth sore, and the friction is now omitted. Decoct. sarsæ cō. ʒvj. b. d.

17th. Discharged well.

Case 20.—*Phymosis from Chancres—Gonorrhœa—Suppuration in Integuments of Penis, and in Corpus Spongiosum.* Charles Clark, æt. 30, Job's ward, Dec. 2, 1830. States that three weeks since a chancre was noticed on the glans penis, and in consequence of his neglecting himself the parts became inflamed, and phymosis ensued ten days ago. Subsequently to this event the inflammation has been progressive, and matter has collected beneath the cellular tissue of the penis, upon the dorsum, which latter is in consequence immensely swollen and red; fluctuation in the part is very distinct, but there is no particular prominence, or pointing. This, however, being punctured with a lancet, a considerable quantity of fetid pus escaped with a forcible jet, and the swelling was instantly very much reduced. The pain he has endured from this cause during the last week has been, of course, severe. Some pus escapes from the end of the penis. Slight glandular enlargement exists in the groins, but no discoloration of the skin, nor tenderness. Pulse is 100, not hard—tongue whitish, and dry in some degree. He complains of thirst, and does not sleep by night, at which time he perspires rather freely; but altogether the man's aspect bespeaks trifling constitutional excitement. Ordered—cat. lini. to the penis. House medicine occasionally.

Dec. 4th. Has been greatly relieved by the evacuation of the pus. The enlargement of the penis is less, and the redness is not so bright. The edges of the puncture look dark and unclean, as if disposed to the sloughing process—discharge from it is slight, and we do not notice any from the urethra, the orifice of which is not, however visible. Cat. lini.

6th. Size of penis much reduced—edges of puncture are separated to some distance, but are clearly granulating—there is a free purulent discharge from the part, and the abscess appears to be closing. He rests tolerably well at night—his skin is temperate and moist, and the tongue cleaner, and the feverish symptoms have become gradually less. Pergat.

9th. Tumefaction greatly subsided, and the redness and pain are now very insignificant.

14th. The swelling and inflammation have progressively diminished ; very little purulent matter escapes from the puncture, which is clean.

21st Patient has had rigors, followed by a hot and sweating stage, during the last three days, not occurring at regular intervals, and to-day they have been more severe than heretofore. The perspiration is very profuse. Pulse 100, of moderate strength, and not incompressible—skin, after the sweating stage has passed by, is dry and hot—tongue furred, and white—has vomited during the night—bowels costive—loathes every kind of food. Discharge of pus from the puncture has been very scanty, and the part has almost healed. There is no appearance of inflammation, or suppuration, about the genitals, and the abscess on the dorsum penis has contracted, so that the circumference of the penis is little larger than natural. Mr. Green prescribed Pulv. scammon. c. hyd. gr. xv. statim. Magnes. sulph. 3j. Vin. ant. tart. ℞xx. Mist. menthae, ʒiiss. M. ter quotidie. Poullice continued.

23rd. The rigors have recurred each day, though slight. He now perspires very copiously, the skin being constantly wet, and rather warm. During the last two days the

bowels have been much purged, and he has had frequent vomiting, but there is no tenderness of the abdomen evinced under pressure. The pulse is at 120, small and rather feeble, not hard—tongue furred and of a yellowish colour, but not dry. Does not complain of pain in abdomen, nor in any other part. Continues the medicine.

24th. Has experienced more severe pain since yesterday, seated in the bowels and augmented by pretty firm pressure—pulse is 120, small, but sharp. The vomiting and purging have continued, the pain being temporarily increased during evacuations and before them, and the man has had two or three fits of shivering this morning. His tongue has likewise become more foul. V. S. brachio ad ʒxvj. Hirud. xx. abdomini. Mist. potass. citr. eff. c. Succo limonis, 4tis horis.

25th. There is less pain of belly, and he has had no rigors—rested better last night—pulse 120, not so sharp. Two fluid motions have passed from the bowels without pain, and the vomiting has ceased—tongue is white, and more moist—tenderness of abdomen under pressure diminished considerably.—Pergat.

26th. No return of shivering, nor of abdominal pain—pulse 96, has lost its sharpness.

28th. The rigors have not since recurred and there no longer exist any symptoms of inflammation within the abdomen.

30th. Patient continues easy, and his bowels are open without pain, and no tenderness remains.

31st. Pulse 80, soft and regular—tongue whitish. Inflammatory swelling of penis has greatly subsided.

Jan. 3d. 1831. Local inflammation of the penis has been progressively declining, but the prepuce and extremity are still so much swollen as to prevent the glans being denuded. Poullices are continued.

8th. There is no abatement of swelling, and there is a very profuse purulent discharge from the urethra, which was noticed in the first place, but has recently become more copious. No particular hardness is to be

detected near the extremity of the penis, indicating the situation of chancre.—*Pil. terebinthinæ chio. gr. x. ter quotidie.*

18th. Matter has re-accumulated on the dorsum penis, near the former situation; a lancet being thrust in, about half an ounce of pus escaped. *Cat. lini.*

27th. There is a free discharge of matter from the opening, and the tumefaction has abated very considerably; but he is still unable to deaude the glans—gonorrhœal discharge is rather diminished.—*Pergat.*

Feb. 1. Swelling of the penis has been gradually increasing within the last few days, and there is some developed also in the scrotum; these parts are now very greatly enlarged, tense, and the seat of throbbing pain and heat. There is much hardness of the corpus spongiosum, with a sense of distention imparted to the fingers upon examination, nearly from the commencement of this body to the glans, and suppuration has taken place in it. The man has been harassed with more feverishness, indicated by a moist and clammy skin, and often by a flushed cheek. Mr. Green made an incision into the spongy body, and let out an immense quantity of very offensive pus, to the great relief of the patient.

5th. A very plentiful discharge has flowed from the wound in the perinæum and the swelling both of penis and scrotum is perceptibly less.—Patient is free from febrile excitement, and has rested well.

8th. There is still less swelling, and the discharge is likewise decreasing. The incision presents some sloughs, which are merely superficial.

14th. A purulent discharge from the incision continues, and tolerably abundant. The parts have been gradually diminishing, and very little redness remains.

19th. A gradual abatement of swelling has taken place, and the discharge daily diminishes.—Phymosis remains, and a rather abundant discharge from the urethra. Poul-tices, &c. as before.

22d. The enlargement has progressively decreased, with the quantity of discharge from wound and from urethra.—Ardor urinæ has recurred.

March 1st. Wound made in the corpus spongiosum has almost healed, and no urine has ever escaped through it. The penis is not reduced in size, and the phymosis and gonorrhœal discharge are not relieved in any material degree.—*Pergat.*

8th. A circumscribed hardened spot exists in the corpus spongiosum at the point where the incision was made into it. There is a hard swelling in the site of the abscess on the dorsum penis, and the gonorrhœa persists, but is less severe.

17th. He was made an out-patient of the hospital to day by his own desire, the parts having further subsided, and the induration in the corpus spongiosum being somewhat removed.

The quantity of gonorrhœal matter is very trifling. He is directed to continue the poul-tices, and the chio turpentine.

We should imagine that the patient's constitution would not be secure from secondary symptoms unless mercury be administered. As there is very considerable thickening and enlargement of the prepuce, which yet firmly envelopes the glans, venereal ulcers may exist beneath it, not to be detected by the fingers externally applied.

VII. SUPERFICIAL SORES AND LOCAL INFLAMMATION.

Case 21. James Noin, æt. 35, admitted into Job's Ward during Mr. Green's week, Nov. 29th, 1830, having several superficial sores on glans penis and lining fold of præputium, of four weeks' standing. The glans was of a deep red colour, the integumentary membrane appearing inflamed, and the inflammation confined to it alone. He had neither bubo nor gonorrhœa. The sores were painful, and plainly in an irritable state. They were observed very speedily after connection, within two days. He had made use of no local application either to protect the inflamed surface, or to endeavour to heal the sores, and consequently their appearance is the more angry. Mr. Green ordered the penis to be supported against the abdomen, and lot. spirit. to be applied around the extremity of the penis on linen.

Dec. 7th. Sores considerably healed, and there is less of redness and superficial inflammation in the glans and prepuce. Continue.

14th. A copious purulent discharge comes from the sores, which look kindly.

21st. Sores on penis nearly healed.

23th. The sores have perfectly cicatrized; there is no remaining hardness, and the inflammation has disappeared. He now left the hospital voluntarily.

CASE 22.—*Superficial Sores near Corona Glandis.* Richard Pavy, æt. 22, Job's ward, Dec. 28, 1830. There is a considerable degree of inflammation about the end of the penis, and the prepuce is red and swollen. Around the corona glandis several small and superficial ulcers exist, and some excoriation; from the former there is a free purulent discharge of a healthy character. He has no clap, nor enlargement of the glands in the groin. The present sores have been stationary, and appeared a fortnight ago, a day or two after intercourse. Ordered to apply lot. nigra.

Jan. 1st. 1831. Less inflammation in the prepuce, and the ulcers have not increased. Continue.

12th. Sores healing.

19th. The ulceration has completely healed, and the patient is presented well.

It would be difficult, nay, perhaps more than possible, for any one to say, from reading an account of such cases as we have just given, whether the sores were venereal or not; or whether the exhibition of mercury was required. This important question must be decided, we apprehend, from present appearances alone, and we need not remark how carefully such must be weighed in our minds, with the particular history accompanying each individual case. In the two instances we have particularized, the sores had the aspect of ordinary ulceration, and its properties, namely, secretion of purulent matter. They were observed very soon after sexual indulgence, and had no external characters of chancre. Their speedy cicatrization under the use of simple applications must put their true nature beyond doubt,

and on all occasions where uncertainty may justly exist, we think simple means should be tried, which, if failing in curing, or changing their appearance, should be superseded by the specific remedy.

VIII. PARAPHIMOSIS.

Case 23. George Johnson, æt. 23, a sailor, was admitted on Thursday, the 23d December, 1830, into Job's ward. States that he first observed a gonorrhœal discharge from the urethra on Sunday last, in the evening of which day paraphimosis also occurred. The entire penis is excessively swollen and red, more especially the prepuce, which is firmly girt down at the corona glandis, where a slight stricture exists, and is distended by effusion of clear serum, the part possessing a considerable degree of transparency. Under this condition of the penis he has, of course, endured constant agony, and he is now labouring under great febrile excitement. There is prostration of strength, and the countenance is pallid and moist—the pulse sharp, and hard, 120—tongue white and dry—thirst—bowels constipated—gonorrhœal flux is profuse; the urine is voided with some scalding, but with no impediment from the stricture at the corona.

On the following day the patient was visited by Mr. Green, when the parts were in the same condition as above described. The man had passed a sleepless night, as he had done previously to admission. Mr. Green at first tried to replace the prepuce by emptying the glans of its blood under pressure with the fingers of one hand, and by traction forwards of the integument behind this with the other; this plan, however, not succeeding, he made a small incision upon the dorsum of the penis with a lancet, and the fore-skin being then forcibly drawn forwards and seized at the extremity was, after some little time brought over the glans, strangulation having continued for five days. The means of reduction were of necessity painful, and a state bordering on syncope was thereby produced. Some ulceration was found to have

taken place on the inner surface of the prepuce near to the point of incision, from the great pressure the parts had undergone.—Rags wet with lotio plumbi, cold, are to be applied around the penis, and the bowels to be opened by mist. sennæ comp.

Dec. 28th. Swelling and inflammation are greatly reduced; the surface of the incision and that of the ulcer are free from sloughing, and in a favourable state for granulation. Discharge from the urethra very copious. Pil. terebinth. chio. gr. x. ter die.

Jan. 1, 1831. Swollen state of penis has very much subsided, and it is no longer discoloured, nor painful—an extensive but superficial ulceration is produced on the inner and upper part of the thigh near the groin, which the patient attributes to the irritation of the moist linen applied to the penis. It is covered nearly all over with a black encrusted matter, and the surface, when this has separated in any part, appears underneath red and in an irritable condition.—Cerat. calaminæ ordered.

10th. A gonorrhœal matter still flows from the urethra, and this is the only ailment the man has. The incrustations have been cast off from the thigh, and no ulceration exists there.

18th. The bladder has become irritable from the excessive stimulus of the turpentine—he passes his water nearly every ten minutes, and has a continual uneasiness in the hypogastric region, and has no tenderness there on pressure.

Pills to be intermitted—hirudines 15 to the sacrum, and a blister afterwards, which is to be removed so soon as vesication has taken place.

20th. Is no better, being obliged to void his urine three or four times in the course of an hour—has had chills, followed by sweating—pulse 100, not full, nor hard—skin temperate—tongue white, but moist—no thirst—bowels open—he has rested ill.

22d. Irritability of the bladder has ceased, and the febrile state attending it subsided in a great measure.

27th. Some discharge remains, with ardor urinæ, but excepting these he has nought to complain of.

Feb. 8th. A thin and colourless discharge continues from the urethra, but it is nothing more than gleet.

17th. Presented well.

CASE 24.—*Paraphymosis*. James Stevens, æt. 24, was admitted Jan. 13th, 1831, into Job's ward. Reports he has had paraphymosis for nine days, and noticed a discharge from the urethra about a week before it took place. This has now nearly terminated—very slight inflammation is present, and he endures no pain. Some ulceration has taken place in the constricted part of the prepuce, but there is very slight enlargement of the extremity of the penis. The constriction behind the glans is very firm, and as the patient would not make up his mind to suffer the pain from the replacement of the parts, Mr. Green declined making any attempt which he was not at all certain would prove successful. No chancre would appear to have formed on the glans, or inner surface of the præputium—cat. panis, to be applied cold.

Jan. 16th. The surface of the glans has been dry, and the cuticle cast off in small pieces, but it is now in its natural moist state, and the swelling has subsided. The ulceration is clean, and the attachment of the prepuce seems to be on the right side only.

20th. The foreskin has come over the glans for a considerable distance without any assistance from art, but the adhesion is not broken through.

27th. The entire glans is now covered by the prepuce. A rather profuse purulent discharge issues from the ulceration on the outer surface, which has however a natural and healthy appearance.

Feb. 1. Ulceration is somewhat diminished in extent, but phymosis now exists.

5th. No ulceration remains, nor other ailment but phymosis.

17th. Presented well, but the glans cannot be perfectly denuded.

Had space permitted, we intended adding some cases of secondary syphilis, and some also of primary and secondary disease complicated in the same individuals. These,

however, we find from the great length to which our present paper has extended, must be deferred with other surgical cases of interest to another occasion.

BETA.

LII.

SEVERE INTERMITTENT AFFECTIONS.

M. GUALTIER DE CLAUERY has published two cases in the *Journal Hebdomadaire*, which deserve a short analysis.

Case 1. Mademoiselle D—, aged 79 years, (she ought to have taken the title of Mrs. ten years previously,) of robust constitution, living an austere life, and affected for nine years past with caries in the left hand, became affected in April, 1829, with conjunctivitis, and afterwards, in May, with erythema, and an obstinate pustular eruption on the forehead, accompanied by violent hemicrania. On the 22d May, she experienced some irritation in her bowels, attended by a diarrhœa. After a day's intermission, she was seized on the night of the 24th with pain in the right hypochondrium, shivering, pallor of the face, &c. to which succeeded the diarrhœa as before. 25th. Free from diarrhœa. 26th. The diarrhœa returned in the night, with the above-mentioned precursory symptoms. These subsided, and recurred on alternate days or nights, puzzling the doctor most sadly, till at length he could not longer be blind to the periodical type of the disorder. He then administered twenty grains of the sulphate of quinine in 24 hours, and put an end to the complaint.

Case 2. INTERMITTENT SOPOROSE AFFECTION.

In the month of April, 1830, the same female, who had continued to enjoy excellent health, considering her great age, and went regularly to church at six o'clock every morning, was taken suddenly with a chilliness, malaise, head-ach, and giddiness, so

that she fell down in a state of stupor. The respiration was laborious, and the pulse was scarcely perceptible. This state continued for four hours, and was removed by sinapisms and pediluvia, ending in a general perspiration, and complete remission of all the symptoms. The succeeding day was passed in apparent health; but the day after that presented a repetition of the soporose state, still more marked than in the first instance. The medical attendant now became aware of the periodical character of the complaint; but was afraid, thus early, to have recourse to the quinine. He therefore ordered sinapisms to the legs, and leeches behind the ears, together with a purgative lavement. As soon as the comatose symptoms gave way, the tonic was ordered, in the dose of 12 grains in the 24 hours. The comatose attack recurred at the same hour, on the second day, as before, but much milder in force. The quinine was continued; and no more accessions took place.

We shall not indulge our readers with a train of reflections which arose in the reporter's mind, in consequence of the foregoing case. The results are so decided, and the conclusions so obvious, that it will be unnecessary to say any thing on this occasion.

LIII.

WOUND OF THE TRACHEA—OCCLUSION OF THE LARYNX—AERIAL FISTULA. BY M. RENAUD, (JOURN. HEBDOM.)

Case. J. M. Leblanc, suspected of assisting in the fabrication of false money, was induced to quit his home, and seclude himself in another part of the country. In the mean time it seems he was condemned to death for contumacy. "Pendant son absence, il est condamné à mort par contumace." Three years afterwards; (March 1821,) then 29 years of age, being in a field, he perceived three gendarmes approaching him; and conceiving that they were in pursuit of him, he instantly determined on suicide. He always carried a bistoury with

him; and seizing the instrument with his right hand, he plunged it into that part of his throat corresponding with the space between the cricoid cartilage and trachea. The point of the instrument being directed upwards, it entered the larynx, and made its way out again, being directed from one side to the other. A profuse hæmorrhage ensued; and his answers to the *gens-d'armes* were not intelligible. They conveyed him to the nearest village, where he was unable to procure professional assistance for several hours. It was found necessary to introduce fluids into the stomach, for the purpose of alimentation, by means of a tube, and in twenty days the patient began to have some power of articulation. But, in proportion as the external wound healed, the difficulty of breathing increased; and in six weeks after the accident, the unhappy Leblanc, fearing the officers of justice, contrived to make his escape to a distant part of the country, where he took refuge with his brother. Then the terrible difficulty of breathing suggested to Leblanc the idea of re-opening the original wound, in hopes of either putting an end to his life or his sufferings. With this intention he took an opportunity of pushing a knife through the cicatrix, and thus giving a free vent to the respiration. In this auto-operation, Leblanc made an opening into the pharynx, but of small extent. His brother arriving in an hour, was terrified, and applied to the magistrate of the place, who procured a physician to examine into the state of the patient. He was conducted to the HOTEL DIEU of Rheims, where an attempt was made to re-unite the wound: but the difficulty of breathing which ensued, caused them to abandon the attempt. The event was left to Nature, and in a fortnight the wound of the pharynx was healed. In proportion as the laryngeal wound healed, however, the dyspnœa increased, as on the former occasion; and to prevent suffocation, the patient himself constructed a tube of lead, two inches in length, and more than an inch in circumference, which he introduced, with some difficulty, but which gave him complete facility of

breathing. He was obliged, of course, from time to time, to remove the tube, in order to clean it, and give issue to accumulated mucosities. In two months, he was completely well, with the exception of the inconvenience of the tube. And now the unhappy man was brought before a tribunal of justice, and was condemned to death. The severity of the sentence was, however, mitigated into perpetual labour. He was sent to work at a public construction in Toulon, where he arrived on the 11th September, 1822. There he worked till the month of August, 1825, when the leaden tube slipped into the trachea, and became impacted at the origin of the right bronchus. There it excited constant and violent fits of coughing. He was sent to the hospital, and the instrument was extracted by a surgical operation, no details of which are given. During the patient's stay in the hospital, M. Renaud ascertained the complete occlusion of the larynx, by various experiments; and yet the patient was able to articulate many words with very considerable distinctness. Many of the most distinguished medical men at Toulon corroborated these facts. They all became convinced that the articulation of sounds in Leblanc's case, was made in despite of the entire occlusion of the larynx. This man could speak so distinctly, as to be heard and understood at some distance. There were certain words and letters, however, which he could not pronounce, as, for example, the letters a, c, l, and especially o. When he attempted to speak, he opened his mouth wide, depressed the larynx, and then, by a violent effort, expelled what air he could, as if by the act of coughing. Leblanc became the subject of repeated attacks of bronchitis, which ended in phthisis, of which he died on the 29th July, 1828.

The dissection was made in the presence of the COUNCIL OF HEALTH, and various officers of the hospital. The complete occlusion was satisfactorily proved, the obliteration of the passage being where the trachea joins the larynx. The problem remains to be solved how Leblanc could speak, under such circumstances. Our readers may re-

member the case of Mr. Price, Portsmouth, who still breathes through a tube in the trachea. In his case there is a small aperture still for air, though not sufficient for respiration. His voice is almost extinct.

LIV.

CASE OF IDIOPATHIC PHLEBITIS. By PAUL S. KNIGHT, M. D.

THE following case is related in the second number of the North of England Medical and Surgical Journal, by Dr. Knight, of Glossop.

“Joseph Harrop, aged forty-eight, is a strong muscular man, but considerably the worse from wear and tear. He served in the Peninsular wars in the Horse Artillery, and was there wounded by musket shot, once on the lower part of the right tibia, and another time the ball penetrated through the inner part of the thigh, passing pretty near the trochanter minor, also on the right side; he also suffered much from exposure at nights, and excessive fatigue, and he supposes that, in consequence, the veins of both legs have become varicose. In November last he was employed as a watchman, and during one very cold night he suffered much, and shortly after pain and erysipelatous inflammation made its appearance on the inner side of the left leg up the course of the absorbents; and for which he took mercurial purgatives, and the carbon. sodæ, and applied to the part leeches and a sedative lotion. On the 2nd December, about a fortnight after the first application for relief, the man complained of headach, with a pulse about 90 and sharp, and a countenance expressive of great anxiety; I found the vena saphena inflamed, and to the touch it conveyed the sensation of a cord under the integuments, extending from a little above the inner condyle of the knee, up to the abdominal ring, the integuments

of the knee immediately above the vena saphena in a state of very active inflammation, and the vein itself, at that part, perceptible to the eye, bulging and large, and somewhat elastic on pressure. As this tumour produced extreme pain, and as it was quite clear that all circulating communication was cut off, I resolved to open it freely, a large clot of coagulated blood instantly plugged up the orifice but was gradually protruded out, and clot after clot succeeded, great ease being the speedy result. Below this spot I was subsequently obliged to open two abscesses that had formed in the vein, and from which healthy pus mixed with coagulated venous blood was discharged; these abscesses healed readily, but repeated local and general bleeding, the latter performed in the erect posture, and continued till fainting was produced, was necessary to subdue the soreness of the part. This had scarcely been accomplished on the 19th Dec. 1829, when the poor fellow directed my attention to the vena saphena of the right thigh, it was inflamed from below the knee up to the abdominal ring, that is, it felt extremely sore, and produced to the touch the same impression that a cord would, a slight blush was visible immediately over the vein—thirty-six ounces of blood were taken from the arm, and two dozen leeches applied along the course of the inflamed vein.—R. Pil. Hydrarg. ʒi. in bol. ii. divide capiat i. nocte. maneque.

20th Dec.—Much pain on pressure—pulse hard and full, countenance very copious, complains of headach, bowels open.

V. S. ad fl. ii. and apply twenty-four more leeches.—R. Subm. Hydrarg. ʒi. Opii. purif. gr. iv. Cons. Ros. q. s. ut. ft. massa in pilulas xxiv. dividend. quarum capiat unam quarta quaque hora.

21st.—Blood taken yesterday, much cupped and buff colored. Pulse 80, and sharp—continue the pills. Pulse softer.

22nd.—Mouth affected, pulse soft and free, a hard tumour in the groin, as felt yesterday, is separated into detached and small hard masses; the pytalism was continued about a fortnight, when all inflammatory action had subsided.”

LV.

ON THE TREATMENT OF CROUP. By Mr. GOODLAD.

A PAPER under the above title has recently been published in our new contemporary, the North of England Medical Journal, by a very judicious and able practitioner, Mr. Goodlad, of Bury, which we shall here give some account of, in order that the information contained in it may have as extensive a circulation as our Journal can give it.

Mr. G. deems it unnecessary, of course, to detail the symptoms of croup, a disease which appears to be very prevalent in the district where he resides.

He confines himself, therefore, to a brief outline of the treatment which, in his practice, has almost invariably been found efficient.

"In this complaint," says he, "every gradation may be traced (by placing the ear within a short distance of the patient's chest) from the brazen-like sonorous cough, to the gentle stridule heard more faintly as the patient approaches to convalescence, *and is able to draw a full and slow inspiration.* On the other hand, if there be rattling conjoined with a disposition to sleep, pale or livid lips, and cold extremities, effusion has taken place—death must follow, and will be accelerated by the remedial means we should otherwise employ. But so long as that attack is accompanied with a high sounding cough, without rattling, the mischief, whatever it may be, is not irremediable; I would go much further, and declare it ought to be arrested, and feel a perfect conviction, in the majority of cases, that it may."

We think that Mr. Goodlad would be more accurate in his diagnosis of the actual state of things, if he put his ear in direct contact with the thoracic parietes; for assuredly he would thus become better acquainted with the natural morbid sounds in the aerial tubes.

Mr. G. observes that there are instances on record where death took place in croup, and where no effusion could be observed—facts which militated in favour of spasm, and

probably prevented active treatment. Such instances are, no doubt, rare.

"Amongst the poorer classes in Lancashire, who seldom call in assistance for Croup, until all chance of recovery is destroyed, I have never yet seen a case terminate fatally, without an effusion in the bronchia being conspicuous several hours before death; and I am much disposed to attribute such an event, where it has happened, to the remedies made use of, rather than consider it a natural termination of the disease; particularly as some of those commonly in use are well calculated to produce it.

Amongst these the warm-bath is one of the most active, and, at the same time, most injurious; and I cannot imagine how any one, who has once witnessed its effects, can again recommend it in Croup. It is, in my opinion, so decidedly hurtful, by quickening the circulation, that I should interdict its use in almost all inflammatory cases. The warm-bath, I think, is never useful unless prolonged until faintness is produced; and in the early stages of inflammatory complaints, it is often impossible to produce this effect, until the heart beats more than 130 times in a minute, which is a degree of excitement I think unwarrantable. If resorted to later, effusion is brought on sooner than it would otherwise supervene; and many practitioners could, I think, call to mind cases, where its use has been followed by unexpected death: the vessels previously emptied perhaps by bleeding, having given way, and apoplexy supervened."

We have had numerous opportunities of witnessing the injurious effects of inconsiderate recourse to the warm-bath in inflammatory affections; and we, therefore, recommend to the attention of practitioners the foregoing observations of Mr. Goodlad.

Emetics are condemned by our author, and not without reason, as a general remedy in croup. Nauseating doses of emetic tartar are considered as doubtful remedies in the same disease. Elisters in the neighbourhood of the trachea were found to be injurious in the early stages of croup. A

heated and close atmosphere in the room of the patient is decidedly injurious.

"From what has already been said, it is evident that two indications are necessary to be attended to, in the cure of Croup; the first is to subdue the inflammation of the windpipe, the other to relieve the oppressed circulation. Without the first object be attained no means will avail; nor will it in every case be safe to wait until that can be accomplished before we relieve the system at large. Danger may be imminent from either of these causes, and we have often to determine whence it is most so, and to regulate our practice accordingly.

The causes which produce Croup, its symptoms and progress, alike indicate the necessity of blood-letting, and this remedy, in comparison with which all others sink into insignificance, should be immediately resorted to. Any quantity of blood may be drawn by leeches, and the local complaint, in almost all cases, be subdued by them; for if one crop of leeches do not remove it others must follow, until the breathing becomes free, or the child so faint, that further depletion would be unsafe. This mode of taking blood, by emptying the vessels which are inflamed, will, it is evident, afford relief, with least expense to the constitution: but when the complaint has existed many hours, and the jugular vein becomes alternately distended and collapsed, during each inspiration; when the angles of the mouth are drawn downwards, every muscle of the neck brought into action, and the breathing consists of a series of gaspings, there will not be time afforded for leeches, and not a moment must be lost. The external jugular vein should be immediately opened with the lancet, though this operation is sometimes exceedingly difficult, requiring a quick eye and a prompt hand to catch it between each inspiration. The struggles of the patient, and the great contraction of the muscles, add to this difficulty: but no consideration should deter us from giving instant relief, and no other method of taking blood seems to afford the same immediate benefit both to the head

and breathing. The child may be on the brink of effusion, and every minute lost is matter of serious reproach; but this urgency of the case, which, if not attended to, will speedily be followed by stupor, and that loss of sensibility over the whole frame so favourable to effusion, renders additional precaution necessary; for if the depletion be carried too far, or the vessels emptied very suddenly, that event, so much to be dreaded, will be accelerated.

The finger should therefore be kept upon the pulse whilst the blood is flowing, and the further flow of blood prevented, if the breathing be properly relieved, before faintness is induced. It is safer to trust the further treatment of the case to leeches, which are indeed often necessary even when the jugular vein has been opened, and the loss of blood carried for the time to the greatest extent. This will not be matter of surprise, when we consider how little connexion there is between the arteries ramified upon the inner surface of the windpipe, and the external jugular vein. It is safest, therefore, to unload the general circulation, where that is requisite, from the system at large; and treat the local complaints with leeches where they can be easily obtained; but if not, the finger may be placed upon the orifice for a short time, when the breathing is relieved: and another and a smaller quantity of blood be taken from the same orifice, until faintness deter us from proceeding further."

Mr. G. generally directs leeches to the lower part of the trachea, below the larynx, because they bleed quite as well as on the upper part of the tube, and the blood is thus drawn from those vessels that have most recently taken on morbid action. In whatever way blood be taken, faintness must be induced, and kept up for some time.

"It is now that the ear of the practitioner will be most useful to him, and the sound of the cough, the noise which is made by the air passing through the inflamed part, and the frequency and freedom of the inspirations must be closely attended to. He should never leave the bedside of the patient until

he is satisfied on every one of these points, since he cannot do so with safety, or consistently with that duty we all owe, where the life of a fellow-creature is at issue. By and by, he will be rewarded by hearing the cough alter its tone, it becomes loosened, there is a little expectoration, and the child is safe."

A stridule, Mr. G. observes, will remain after the respiration has become free; and neither this symptom nor the high-sounding cough afford sufficient reason for more leeching, yet the long continuance of either of them is an object of suspicion, and *unless the inspiration be free, full, and slow*, we may be assured that inflammation is not entirely removed.

Croup is no doubt an idiopathic disease in many cases but in the majority, and in the most severe instances, it is accompanied, if not produced, by dentition, together with determination to the head, and a disposition to effusion there. The state of the gums ought, therefore, to be examined in all cases; and they should be freely lanced if they shew heat or thickness in any part. The bowels are to be opened by castor oil or jalap and calomel. The only other medicine which Mr. G. is in the habit of giving is calomel and opium, in large and frequent doses. This combination, before the loss of blood, would be injurious; but after that measure, when the head is free, and the breathing quiet, it produces the best effects. It induces sleep, appeases the cough, determines to the surface, and prevents re-action; whilst the calomel acts here, as in iritis, by preventing effusion and producing absorption.

"Another advantage arising from the combination of opium is, that it enables us to give a larger quantity of calomel, than would be otherwise practicable without its passing off by the bowels; and as the glandular system in children is seldom affected by it, and pyalism, therefore, rarely induced, we need not be deterred from giving it largely, and have occasion only to watch its operation on the bowels."

Several cases are detailed by Mr. Goodlad in illustration, but the precepts of treat-

ment are so clearly laid down, that we deem it unnecessary to quote any of them in this place. Mr. Goodlad is evidently a decided and judicious practitioner.

LVI.

APPEARANCES OF THE TONGUE IN DISEASE.

By M. PRIORY.

IN all cases in which the pulse is strong, frequent, full and developed, the colour of the tongue, in common with that of the conjunctiva, cheeks, lips, pharynx, and gums is red. After extensive evacuations of blood, and in chronic affections, all the tissues are pale, and consequently the tongue also. In cases of gastritis, enteritis, and dysentery, attended with trifling fever, the colour of the tongue is more or less pale. In traumatic fever, and in pneumonia, uncomplicated with gastric symptoms, the tongue is generally of a vermillion, sometimes of a deep red; after repeated bleedings, however, or when the stomach and liver become consecutively diseased, the tongue becomes pale. Most generally, the increased redness of the tongue is perceptible only at its edges, the middle being variously coloured, in consequence of the coating which it assumes, but when the latter is removed, the colour of the whole organ is found to be uniform. The apex of the tongue is not often reddened, excepting during the efforts which the patient makes to protrude the organ; as soon as these efforts cease the redness of this part disappears. The dryness of the tongue's surface is produced by the evaporation of the fluids by which it is covered. Every affection, therefore, which causes respiration to be affected by the mouth, tends to produce this dryness. It occurs in coryza, in all diseases affecting the nasal fossæ, and in cases attended with accelerated respiration; hence the tongue is peculiarly dry in intense pneumonia, especially when attended with coryza, and in pleurisy. Fever, accompanied with increased frequency in

the contractions of the heart, and consequently with frequent respiration ; diseases of the liver, stomach and peritoneum, in which the respiration is accelerated by the full descent of the diaphragm being prevented, are attended with a dryness of the tongue.

The repeated observations and experiments of M. PRIORRY, in relation to the saliva and mucus of the mouth, have convinced him that the various coatings of the tongue and teeth met with in disease are produced by different degrees of exsiccation in the fluids, by which these parts are uniformly covered.

LVII.

ON THE THERAPEUTICAL PROPERTIES OF ARSENIC. By J. ANDERSON, Esq.

In the second Number of the Glasgow Medical Examiner, Mr. Anderson has published some observations on arsenic, which coincide exactly with our own experience. These observations may tend to lessen the timidity with which this powerful, but safe medicine is administered by many practitioners in this country ; and, as the paper is short, we shall give it in the words of the author.

"In calling the attention of my fellow-practitioners to arsenic, as a remedy, it is not my intention to give either a systematic account of its effects on the constitution, or of the diseases in which it has been employed ; but to point out some peculiarities in its action, which I think will justify a more extended exhibition of this medicine, than has been usual in this part of the world.

The first point to which I would direct the attention of the practitioner, who has not been in the habit of prescribing the oxide of arsenic, is, that its action in a dose, which is poisonous, is altogether different, not only in degree, but in kind, from the effects which it produces when properly administered. Its earliest poisonous effects are, diminished action of the heart and intense inflammation of the stomach ; and occasionally the latter

is so severe and immediate, as to destroy life ere it has effected any of those disorganizations by which it is recognized.* Given medicinally, its effects are totally different from those it displays as a poison. The first and earliest sign of its action, is an increased strength and frequency of the pulse ; next follow, the usual fulness of the palpebræ, and itching of the *alæ nasi*. If the exhibition of the medicine be continued, the irritation of the mucous membrane extends to the fauces, inducing redness and cough ; and along with these symptoms, the tongue begins to be covered with a white fur, which, gradually increasing in thickness, gives its surface the appearance of having been rubbed over with chalk. The action of the heart continues to increase in force and frequency ; the pulse becomes full and hard ; and at last, a general anasarous state begins to be established. Up to this point, the medicine may generally be given with safety.

The great peculiarity, then, in the action of arsenic, is the powerful effect it produces upon the heart. It is, in fact, a permanent stimulant to the vascular system, and in this consists its value as a therapeutical agent. In arsenic, the practitioner has a powerful stimulant, without any subsequent debility, the muscular force and general strength of the patient being rather increased than diminished during its use ; he has it in his power to increase the fulness and strength of the pulse ; to induce, in fact, a state of general plethora. Surely, a medicine possessed of properties so valuable, ought not to be looked upon with that distrust with which it is commonly regarded, and be prescribed in rare and isolated cases, with a trembling hesitation,

* "This explanation of the manner in which arsenic produces death, is certainly more in accordance with the known action of metallic poisons, than that it should, as Brodie and others have asserted, prove fatal by a supposed sedative action upon the heart and brain."

very different from a well-regulated confidence in its virtues; and, farther, be abandoned, so soon as it begins to produce its necessary and specific effects upon the system. What would be the amount of our knowledge of the effects of mercury, if we always gave up its use so soon as it produced tenderness of the gums, and before ptyalism came on? About as much, or more, than we know of the effects of the oxide of arsenic.

If we institute a comparison betwixt the general effects of arsenic as a remedy, and those of mercury, its inconveniences will be found greatly less. It causes no debility; no salivation; there is no danger of exposure to cold during its use; opium is not required to correct its action on the bowels, and the patient may, if otherwise able, pursue his usual avocations: a point of very considerable importance in the treatment of chronic disease.

It is scarcely necessary to take any notice of the dose of this medicine, or the method of administering it. If given in solution, it ought always to be given either largely diluted, or taken after meals, or both. A very good method is to order it to be taken in a cupful of equal parts of milk and water. If, in this form, it produces anorexia, vomiting, or pain of stomach, the prescription ought to be changed; it may be combined with opium, or administered in an effervescing draught. The most common error, in prescribing the solution, is giving it in too large doses. If five drops disagree, let two or three only be given, at shorter intervals; and if there exist an imperious necessity for bringing the system under its influence, it may be given in small doses every half-hour or hour. Fortunately, the necessity for giving this powerful medicine so rapidly, does not often exist in this country; but in the East Indies, it is given in this way as an antidote against the bite of poisonous serpents. It operates in these cases as a powerful stimulant, counteracting the intensely sedative action of the animal poison; and from its permanent effects, it is much more valuable than ammonia, or any other of that class of medicines.

I will here subjoin two cases, illustrative

of its action, and of the length of time it may be used.

J. A. about 40 years of age, affected with a cutaneous eruption on his hands, began the use of Fowler's solution, in doses of five drops three times a day, to be gradually increased to ten. Being at some distance in the country, and the eruption disappearing, he continued increasing the dose to fifteen drops, instead of ten; he also neglected to call every third day, as ordered. He had continued this increased dose about a week, when he called upon me, complaining of a severe cold he supposed he had caught. I found him with a pulse of 120, particularly full, hard, and bounding; complaining of cough, attended with a feeling of oppression and tightness about the chest; there was general anasarca: and his urine was scanty and high-coloured; his whole system, in fact, seemed labouring under an excess of fluids. He was bled to ℥xx ; the blood flowed with unusual force, and was of a bright arterial colour; the bleeding was followed up by saline purgatives, and the disagreeable symptoms speedily disappeared.

The second case is illustrative of the length of time during which the arsenical oxide may be administered without inconvenience. It is a case of *Lepra vulgaris*, which I first saw about two years ago. The eruption covered nearly the whole body, and the scales were of unusual thickness: being complicated with an ulcer in the fauces, apparently syphilitic, and iritis of one eye, the case was at first treated with mercury and sarsaparilla. The iritis and sore throat were cured, but the eruption did not yield. He was then put on the use of the arsenical solution, in doses of five drops three times a day; it was pushed the length of ten drops as often daily before the affection yielded. The use of the medicine was then given up: in three weeks the eruption re-appeared; was again cured; and a second time returned. This routine was gone through many times, until my poor patient was reduced to the necessity of choosing the least of two evils, namely, the taking a daily dose of medicine. He has now been taking the so-

lution constantly for the last year ; he perceives no bad effects from its use ; goes about his usual avocations ; his pulse keeps steadily above a hundred, full and strong ; his eye suffused and watery ; palpebræ slightly inflamed ; appetite good ; tongue has the white chalky appearance described above ; and his general aspect is that of a person in high health. He informs me that he suffers no inconvenience from the use of the remedy, and declares his willingness to continue its use so long as it is necessary. I may here state, that though thirty drops each day were required to cure the disease, fifteen appear sufficient to keep it in check ; and the latter is the dose he has been taking for some time.

On reflecting upon the above case, the question naturally occurs—How does the system eliminate the medicine ? That it is expelled in some way or other is certain, and the urine being the only excretion in which we have any hope of detecting it, I intended to have made an attempt to separate it from the other constituents of that fluid. The following consideration has as yet, however, prevented me from doing so : The patient at present takes $\frac{1}{4}$ th gr. of the oxide daily ; and if we assume this quantity to be equally diffused over the whole body, solids and fluids, the urine will not receive above 1-60th of it. To detect so very minute a quantity, even with all the refinement and delicacy which Christison has given the process of analysis, would, I imagine, be difficult, if not impossible."

LVIII.

CONTRIBUTIONS TO PATHOLOGY.

By DR. BARON.

DR. B. continues to supply matter for the pages of our respected Midland Cotemporary, and we wish he would appear more frequently on the stage, as he is not a routine physician, who studies only the means of filling his purse and extending his connexions. He is a zealous, though perhaps

sometimes a little too theoretical pathologist.

1. Abdominal Tumour.

"The first case I shall mention, is that of a woman about fifty years of age. The disorder, as is generally the case, was not discovered till it had made some progress. It was then found, on examination, that several well-defined circular bodies occupied the lower part of the abdomen. Notwithstanding every effort to arrest their progress, the growth was rapid, and they ultimately acquired a magnitude greater in proportion to the rest of the body, than any tumour I have heard of. From the commencement, it was very clearly made out that it was composed of cysts of different sizes. Some of these cysts it was necessary to tap more than once, in order to relieve the patient from the painful effects of the increasing distention.

I may here mention an incident, connected with the passing of the trochar after death, in order to facilitate the dissection, which, had it occurred previously, would have been followed by the most afflicting consequences. One of the large cysts seemed to occupy the right side of the abdomen. It was thought advisable to empty this in the first instance. The instrument was, therefore, pushed in, but no fluid followed. The cause of this was clearly explained on pursuing the examination. The adventitious growth was so enormous, that it pressed upon the diaphragm and the ribs, and forced the stomach out of its natural situation into the right side, its great curvature extending in a line from the margin of the ribs towards the ilium. In this situation the instrument was inserted. It transfixed the empty stomach, and penetrated the diseased mass beyond. It would have been truly frightful to have seen the poor creature's sufferings brought to an end by such an operation as this, had it been performed, as it really might have been, during her lifetime. She had more than once been tapped on the opposite side ; and no one could have anticipated such an occurrence as was met with in the other.

A crucial incision was next made through the integuments and muscles. The tumour was found very generally adherent to the peritoneum. After this adhesion had been partly separated, a cyst of considerable size, which manifestly contained fluid, was discerned. It was punctured, and about thirty pounds of a chocolate-coloured fluid were withdrawn. This was the cyst that had been repeatedly punctured during her life. On continuing the investigation a little farther, the displacement of the stomach was discovered, and, at the same time, the point where it was transfixed by the trochar. After some little difficulty, nearly the intire of the disorganization was removed. Its weight, independently of the fluid previously abstracted, was more than sixty pounds; so that the full weight must have been more than ninety pounds.

This immense mass was made up of a congeries of hydatids or vessels, or cysts of different magnitudes, and in different stages of their progress. The smallest were not larger than a garden pea, while the largest was of such capacity as to contain nearly 30lbs. weight of fluid. A great number were perfectly pellucid, and contained a thin watery fluid. Some of them, likewise, enclosed smaller cysts. These latter were in some instances consolidated, being nearly of the density of cartilage. In others, the cyst or sac was thickened and opaque; the contents being thick and glairy in some instances; in others, yellow or purulent-looking; in others, the cavity had a cellular appearance, and was filled with a gelatinous-looking substance. In another portion, where the vesicles or cysts had grown together and pressed upon each other, the original globular form was lost, and the section of the diseased mass shewed all the varieties abovementioned, but in a more advanced stage. The aggregation of the elementary parts, in some places, was so complete, and the approach towards consolidation was so great, that a complete scirrhus was nearly formed. The progress towards this state was quite discernible, the septa being formed by the original boundaries of

the separate cysts, pressed and squeezed together by their respective growth, and giving a varied aspect to the morbid part.

The manner of the growth of this huge tumour was distinctly proved by its history. A few separate cysts were at first formed. Their boundaries could even be traced through the parietes of the abdomen. As they increased in size they approximated and united. The consequence was, that *at last, the original inequalities of the surface could not be detected through the parietes, and a superficial examiner, on seeing the tumour removed from the abdomen, might imagine that the whole was enclosed in one sac or cyst.* This fact illustrates a statement which I have often made, by showing how the boundaries of parts, originally distinct or separate from each other, may be lost as the disease advances.*

We quite agree with Dr. Baron, that the common idea of connecting the formation of all morbid growths with the process of inflammation, is an erroneous, and often a dangerous one. "There are still (says he) individuals (we would add, whole classes of individuals) who would place such an enormous adventitious growth as that as the above, as a consequence of inflammation." Yet cysts, in their primary condition, will be found in the centre of a viscus, or on the surface of a membrane, the surrounding parts being as free from all trace of disease as if no such bodies existed. There will be neither pain, redness, fever, nor any functional derangement in the body—circumstances which invariably attend inflammatory action, especially when it proceeds so far as to disorganize structures in the living machine.

"You shall see a cyst as large as an egg, for example, imbedded in the liver, with its transparent coats and pellucid contents. The viscus in which it is found, is, in no other respect, altered. Its colour is not changed, its investing membrane is as smooth and flexible as ever, and the proper

* Midland Med. and Surg. Journal, No. XII.

glandular texture will be found perfect up to the point of closest contact with this new formation. Is such a condition of things, let me ask, compatible with the existence of inflammation of any kind or degree? I am well aware that such occurrences are not often met with in man; and for this simple reason: death seldom takes place whilst these adventitious bodies are in their primary stage, and, when they proceed so far as to lead to death, they, as well as the surrounding parts, are in a very different state from what they were in their more early stages, at their commencement."

Case 2. The second case belonged to the same family, but the termination was unusual, and on that account, as well as from the instructive character of the morbid appearances, has been thought worthy of detail.

"The patient was a woman about thirty-seven years of age. She was admitted into the infirmary on the 30th of last Sept. The character of the disorganization under which she laboured, was easily discovered. The lower part of the abdomen was occupied by a tumour of considerable size. On passing the hand over it, an inequality was detected, both as regarded its surface and its consistence. That portion of it which occupied the right iliac region, was hard, and well-defined, and immovable; that which lay on the left side was soft, more diffused, and afforded a distinct sense of fluctuation. There was great tenderness over the surface of this part of the tumour, and frequently distressing dysuria.

There are great varieties in the rapidity of the growth of disorganizations of this kind. In the present instance, three years, according to the account of the patient, were required to bring it to its present size; during the last six months it had advanced more than in all the former period. The bowels act with difficulty; but she affirms that the *catamenia* are regular.

I need not trouble your readers with regular details of the treatment of this case, but shall state generally the remedies employed,

and the result.—Leeches to the anus, and to the painful part of the abdomen, were repeatedly applied. The hydriodate of potash was used both externally and internally, and the bowels were kept open by saline aperients. These remedies were employed steadily for a month; the result was a diminution of the tenderness of the abdomen, and of the dysuria. The swelling on the right side, likewise, became softer and more moveable. On the 30th of October, the internal use of the hydriodate of potash was discontinued, and a solution of the chloride of potass was substituted. Under this treatment the general health improved, the swelling lessened, and both the bladder and the bowels acted with greater regularity. About the 13th of November, the pain in the tumour returned, and was followed by a considerable increase of size. Repeated applications of leeches were necessary, and the other remedies were continued till the 7th of December. The strong mercurial ointment was then substituted for the iodine ointment, and the tincture of iodine for the chloride of potass. By these means the tumour was again diminished in size, and the local distress much mitigated; so much so, that she asked leave to go home on urgent private affairs. She was absent from the infirmary for nearly three weeks, having returned on the 8th of January.

On the 14th she was seized with rigors, followed by heat of skin; then came on nausea, and frequent discharges from the bowels of a dirty greenish-coloured fluid. There was, at the same time, a marked reduction in the size of the abdominal tumour; but increased tenderness over its surface. Leeches and fomentations were applied to it, but without much benefit. Next day it was manifest that the whole surface of the peritoneum was affected; there was great constitutional irritation; rapid pulse; foul tongue; great prostration of strength, and all the symptoms of an alarming disease. She was bled at the arm; a blister was applied to the epigastrium; and a draught, containing liquor opii, manna, and tartrate of soda, was given every six hours. These reme-

dies relieved the soreness and the irritation of the bowels; but on the 19th, she was seized with sickness, and copious vomiting of a dark green fluid, very much like that which had been passed per anum. After these last symptoms occurred, the patient only lived about two days. Before her death, the abdomen became again considerably tumefied.

The events which have been detailed, led clearly to a knowledge of some of the changes that had taken place. The discharge of the fluid from the anus; the shrinking of the abdominal tumour, and the subsequent vomiting, convinced me that one of the cysts had given way into the intestine. Such occurrences I have repeatedly met before, but death had, in no instance, followed. The cause of the mortality, in the present instance, will be sufficiently explained by the account of the morbid appearances.

On examining the body, the abdomen was found much distended. After cutting through its parietes, a large quantity of a dark fluid, having a very peculiar smell, and mixed with flakes of coagulated lymph, escaped. On throwing back the flaps made by the incision, several large cysts came into view, which occupied the lower part of the abdomen and the pelvis. The peritoneum was inflamed, and adhered, in several places, to the surface of the cysts. The intestines were forced upwards by the cysts, and adhered both to the latter and to each other. The bladder was likewise found high above the pubes, and expanded and flattened in such a manner by the pressure of the cysts, as to cover a considerable portion of their lower surface; so much so, indeed, that had any attempt been made to perforate either of the cysts at any point within two inches of the pubes, the bladder must have been transfixed. From circumstances unnecessary to mention, the examination was obliged to be performed in a hurried manner. In consequence of this, the most important morbid parts were quickly removed from the body: the opening, therefore, by which the contents of one of the cysts had passed into the alimentary canal, was not satisfactorily

made out. There was a very close and strong adhesion between one cyst and the rectum; but it was not at that point that the communication took place. This portion of the rectum, with the uterus and its appendages, the bladder and the whole of the adventitious growth, were then removed. This growth consisted of two large cysts; some smaller ones; and several solid tumours of different sizes. The parietes of the larger cysts were, in some places, very thin; in other places they had become very firm, and were three-quarters of an inch in thickness. In the posterior portion of that one which occupied the right iliac region, there was an ulcerated opening, more than half an inch in diameter, which permitted its contents to escape into the cavity of the abdomen; the character of the fluid in both cavities being alike.

Attached to the posterior part of the left cyst, were two smaller ones, each having thin and transparent coats; and the contents clear like water. There was another cyst adjoining these, about the size of a cricket-ball. The contents were of a dark brown colour; and the coats were thickened and changed like those of the larger ones. In the fundus of the uterus there was a small tumour in a scirrhous state, about the size of a horse-bean; and not far from it there was another, as large as a pigeon's egg, in a similar state. Both fallopian tubes were thickened and enlarged, so as to admit, with ease, a full-sized urethra bougie. The remains of the left ovary were found attached to one of the cysts, but the right ovary was so much enveloped in the diseased mass, that it could not be distinctly traced."

Case 3. Instances similar to that now to be detailed, are not very common. It would have been more complete had Dr. Baron been permitted to watch the disease to its termination. The patient, however, insisted on being removed from the hospital before death took place.

The patient was a female, aged 30 years, admitted into the Gloucester Infirmary on

the 11th of November, 1830. An abstract of the symptoms and treatment is as follows:—

“The most prominent symptom, then, was the frequent discharge by the mouth, of a considerable quantity of a yellowish purulent-looking matter, occasionally mixed with blood, or, as she herself termed it, of *bloody corruption*. This discharge was generally preceded by a sense of sickness; the matter then ascended into the mouth, and was spit out. She described the action as that of vomiting; but to a by-stander it had not that character. There was no retching—there was no mucus, nor on any occasion were any of the usual contents of the stomach ever seen. These symptoms were accompanied by pain in the right side of the chest, between the shoulders, and in the right hypochondrium. Pressure on this part, and on the epigastrium, increased the pain, and a decided sense of hardness and fulness was at the same time felt. The woman looked ill, and was much emaciated. She could not lie on the right side; but she positively affirmed that she had no cough, and never had any, during any part of her illness.

Her disorder began about eight months ago, with severe pain in the right side, and a sense of weight in the epigastrium. Two months after the commencement of these pains, while engaged in some hard work, she brought up a considerable quantity of blood, which was soon afterwards followed by the *bloody corruption*. This continued daily for a fortnight; and she has never passed a week since, without its occurrence.

The circumstances connected with this discharge, rendered it somewhat difficult to account for its origin. The woman's own notion that it came through the stomach, was, in some degree, countenanced by the entire absence of cough, by the previous history of the disease, and the comparative freedom of the organs of respiration. The sound on the right side of the chest, it is true, was dull, but the respiratory murmur was tolerably complete.

After she had been a few days in the

house, I ascertained, after a very accurate examination, that pressure on the right hypochondrium first occasioned a considerable degree of pain, and next, that sort of sensation which generally preceded the discharge. I immediately repeated the pressure, and continued it more firmly and steadily for a short time; and the result was, the almost immediate discharge of about two ounces of purulent matter from the mouth. It was manifestly forced up by the pressure; and I had an opportunity of verifying this fact on subsequent occasions. It was further ascertained that the alvine evacuations were of a very unnatural appearance; the food being undigested, and the bile manifestly deficient, but at no time was any trace of a purulent discharge detected in the stools.

From a careful review of all these occurrences, I was led to conclude that the abscess existed in the liver; but the *course* of the discharge was still somewhat perplexing. As it never passed *per anum*; as it never was mingled with any of the contents of the stomach; and as the *action* by which it was evacuated was not like that of vomiting, especially when the discharge was effected by pressure, the only conclusion I could come to was, that adhesion had taken place between the liver and the diaphragm, and between the latter and the pleura pulmonalis. Ulceration having subsequently destroyed the intervening portion of the diaphragm, the matter would easily escape into the lungs, and be discharged through the trachea. The absence of cough certainly militated against this view; I, nevertheless, saw no other method of accounting for the symptoms.”

The subsequent details are very brief. Sometimes the patient seemed to improve considerably; but these flattering symptoms did not long continue. She began to have more serious affection of the chest. Pain was increased on full inspiration, and felt in both sides. On the 15th of December, and for the first time, she was seized with cough, followed by a discharge of purulent matter. All the phenomena now

became alarming. The pulse increased in velocity—the emaciation was more marked—and each successive day announced the fatal termination, or at least the augmented progress of the disease. The unfortunate patient, under these circumstances, determined to be carried to her own home, there to end her miserable days. No dissection was permitted.

We hope Dr. Baron will not relax in his zealous pursuits in this department of pathological investigation.

LIX.

THE LATE PROFESSOR BENNETT.

THIS able teacher has paid the debt of nature since our last number was published; and as no account of his illness has yet been given to the public, we can supply the necessary information, the Editor of this Journal having attended Mr. Bennett during his last and fatal illness, as well as in many preceding attacks of the disease which ultimately terminated this rising young anatomist's existence. There is little doubt that Mr. B. laid the foundation of his ill health in the dissecting-rooms of Paris, where he laboured to improve himself and others, with more zeal than discretion. The consequence was, a very disordered condition of function in all the great abdominal viscera—more especially of the stomach, liver, intestines, and kidneys. The biliary secretion was always going wrong, and presenting unequivocal signs of vitiation. The intestinal secretions and excretions were also particularly deranged, both in colour, smell, and all physical properties. A remarkable symptom, in this respect, was the frequent evacuation of whitish and sometimes fatty or gelatinous fæces, which emitted a strong ammoniacal odour, and were attended with great irritation, both of mind and body. These were the ordinary symptoms; but, in the course of the last eighteen months of his life, he had several attacks of an alarming nature, amounting, upon two occasions at least, to *ileus*. Obstruction in the bowels, resistance

to every kind of aperient, vomiting, distention of the abdomen, pain and tenderness there, ejection of fæcal matters by the mouth, hiccup, facies hippocratica, and small quick pulse, have more than once continued for some days in succession and rendered his case almost hopeless. Nothing but calomel and opium, with large and reiterated injections of soap and water, saved him upon these occasions. But Mr. Bennett had insuperable objections, or rather antipathies to some medicines, especially opium, and often allowed his disease to get to a great height before he would submit to the directions of his medical advisers. In the intervals between these attacks, and during the existence of the ordinary symptoms of derangement of the abdominal functions, before alluded to, Mr. Bennett was extremely imprudent in his diet, drink, and general regimen. He was perpetually changing his plans, and taking all kinds of medicines, except those that were proper for him. The most prudent thing which he did, during the Summer of 1830, was to run away from London, and travel for his health. He came back at the commencement of the Winter lectures, considerably recruited in his bodily functions; but still evincing the germs of a serious disease in the intestinal canal. He resumed his duties, as a teacher in the London University, and being very imprudent in diet, soon relapsed into a very bad state of health. About a month or six weeks before his death, he had one of his usual attacks of *ileus*; and his medical attendants almost despaired of effecting a passage through his bowels. The obstruction, however, was at length conquered; but he never afterwards rallied. He was harassed with diarrhœa, and in the motions appeared purulent and other matters, indicating ulceration of some part of the intestinal canal. He daily emaciated—became affected with cough, ulcerated throat, œdema of the lower extremities, loss of voice, and died a mere skeleton! During the last fortnight of his illness Drs. Chambers and Clark joined in consultation with Dr. Johnson, who attended him daily throughout the whole period of his distressing disease. Strange to say, this

accomplished and zealous anatomist gave the most positive directions and injunctions that no examination of his body should take place after his decease ! These injunctions were obeyed, in order that the feelings of two amiable sisters, who nursed him on his bed of sickness and death, might be spared. As the writer of this short account was only acquainted with Mr. Bennett in the quality of his physician, he feels himself incompetent to give any biographical particulars, which he leaves to some of Mr. Bennett's more intimate friends.

LX.

ON THE STATE OF THE CIRCULATION IN THE LUNGS. By Dr. MALDEN, of Worcester.

In our Midland contemporary of last quarter, Dr. Malden has addressed a letter to Dr. Hastings on the above subject, in which erudition and ingenuity are conspicuous.

Passing over some appropriate quotations from the fathers of physic, respecting the age at which phthisis is most likely to commence—the causes which gave it birth—and the symptoms which notify its approach, the author institutes a comparison between the symptoms of the congestive form of acute pneumonia, and those of incipient phthisis.

"It frequently happens (he observes) that, at the very onset of inflammation of the lungs, the pulse is small, irregular, and oppressed, yet very frequent, the patient at the same time complaining of great weakness and oppression ; yet there are present, a load at the breast, difficulty of breathing, great anxiety and heat felt about the precordia. This sudden prostration of strength and pulse cannot depend upon real exhaustion, which the duration of the disease for a few hours could not produce. The debility, and all the other symptoms, depend upon the unequal distribution of the blood, the great accumulation of it in the lungs, the

impeded function of these organs, and the imperfect supply of blood to the systemic side of the heart. 'In such cases, letting of blood is so far from weakening, that it really raises the powers of nature.'*

In some very violent cases, 'where both the lobes of the lungs are greatly inflamed and obstructed, an immediate and excessive weakness comes on, with an inexpressible anxiety and oppression of the chest, a very small, weak, trembling pulse, coldness of the extremities, clammy coldish sweats, the eyes staring, the face bloated, and almost livid, &c.†

In this extreme and dreadful case, the blood is so accumulated in the lungs, that the aorta and its branches do not receive enough to carry on the common offices of life.

'Dissections have shewn this to be the case. The lungs have been found quite stuffed up with concreted blood, red, hard, and, as it were, fleshy, or rather of the colour and consistence of liver, and so heavy, that any part of them cut off, sank in water.‡ Nothing but immediate and large bleedings can save such a deplorable case as this.

Now, the question I propose is this—is there any analogy between the insidious symptoms of incipient phthisis and such cases as the foregoing ? I think there is, as much as can be expected between acute and chronic disease of the same kind.

Phthisis usually begins with a dry cough, so slight and inconsiderable, that little or no notice is taken of it, till its continuance and gradual increase begin to make it regarded. If, at this early period, the respiration be attended to, it will uniformly be found to be quicker and shorter than natural. This often does not attract attention, from the circumstance of this quick breathing not being laborious when the patient is at rest ; but as it readily becomes so upon slight

* "See Huxham on the Peripneumony, pp. 182-3."

† "Ditto ibidem."

‡ "Huxham as before."

exertion, this latter circumstance is generally noticed much earlier than the former.— This state of things is generally attended with, or soon followed by, a quick, hard and small, *sometimes extremely small*, pulse, constantly above ninety, langour, lassitude, and general weakness; there are occasional, sometimes periodical, burnings of the hands and feet, but, for the most part, the extremities receive a narrow stream of blood, and are easily chilled. *A spitting of blood* has sometimes been the first symptom; this alone would not be a proof of imminent phthisis, but, conjoined with the above enumerated symptoms, it must be considered a very unfavourable sign. On the whole, *short and quick respiration*, with a *hurried small pulse*, are the two most dangerous symptoms in a suspected phthisis; and persons have died in a state of great emaciation, and their lungs, upon dissection, have been found both tuberculated and hepatized, who, when living, had no other symptoms than these two, conjoined with a hacking dry cough.

Is there not, then, acute and chronic pneumonia? and is not a congested state of the vessels of the lungs common to both? and lastly, in aggravated cases, may not death ensue from this congested state alone, or its consequences, in both forms of the disease?"

The author then makes allusion to the subject of "small bleedings in hæmoptysis," on which Dr. Cheyne has written a paper in the Dublin Transactions, already noticed in this Journal. Dr. Malden quotes some passages from Sir John Pringle, to show that that distinguished physician had completely anticipated Dr. Cheyne in his observations, and seems not a little surprised that Dr. C. should have proposed his plan of small bleedings as *something new*, after what Sir J. Pringle had written on the same subject. Such a coincidence, however, between two practical physicians, on a point of mere personal experience, will appear much less surprising than the identity of doctrine between Huxham and Barry, as pointed out by our correspondent, Philalethes, in our last number. It is not, indeed, to be expected that medical

men, immersed in the toil of practice, can wade through the records of antiquity, or even the ponderous tomes of modern works, to ascertain whether or not their practical observations have been anticipated by their ancestors. Good springs out of evil, as well as evil out of good. Many a valuable fact would remain *inoperative*, because not reiterated, if physicians were aware that it had been previously published. Thus, it is probable Dr. Barry would never have instituted a series of experiments, to prove what Huxham had long ago asserted, had he been aware of Huxham's observations, and, consequently, unstimulated by the desire and credit of novelty and discovery. So of Pringle and Cheyne. Not one medical practitioner in one hundred ever turns over a single page of Pringle during his whole life. Pringle's recommendation, therefore, of small bleedings in hæmoptysis (a practice not new even with Pringle) might have remained unnoticed and inoperative, had not a modern physician of talents and experience revived the practice. We shall, however, give Pringle's words.

"Without entering (says he) into the general consideration of these disorders, I shall only take notice of such cases as I have found most frequent in the army."

"Coughs and consumptions are properly annexed to the *inflammatory diseases*. For a recent cough, from cold, may be considered as the *lowest degree* of a *peripneumony*, and an old neglected cough as the *beginning* of a *consumption*.

Obstructions of the lungs are succeeded by tubercles, which making the cough worse, at last tear and ulcerate that organ. In all the bodies which I dissected, of those who died of the phthisis pulmonalis, I found the lungs full both of tubercles and ulcers. We cannot, therefore, be too careful in removing colds in the beginning."

"The disease being of an inflammatory nature, *bleeding* is the chief remedy; which, alone, will often cure bad colds, whilst all other medicines may be ineffectual without it."

"In the older and more stubborn coughs, or in the first stage of a consumption, when the patient complains of pains in his side, constriction at the breast, or hot and restless nights, I have trusted most to *small but repeated bleedings*, to issues, and to low and cool diet.

I have found these *small bleedings* not only beneficial in old coughs, threatening consumptions, but also after hectic symptoms had appeared. The quantity of blood drawn was from *four to seven or eight ounces* once in eight or ten days ; and sometimes a vein was opened after shorter intervals. It was observable that the patients never found themselves so much relieved on the first, as on the second or third night after bleeding. The blood was constantly *sizy* ; but if it had ever been in a resolved state, to have insisted upon taking away more would have been altogether improper. Nor would I recommend this method for common practice, without making great allowance for the strength of soldiers, and *suiting the quantity of blood to be let, to the condition* of weaker patients."

Old Morton, as Dr. Malden observes, has made nearly similar remarks.

"Although bleeding (says he) may do mischief sometimes in a confirmed consumption, yet, in the beginning of one, it is very beneficial : and I do not at all doubt but the *tubercles*, for the most part, are occasioned by the neglect of it, or for want of bleeding to a sufficient quantity in the beginning of the *distemper*, whereby the consumption uses to run presently into the second and more fatal degree.

"For so long as the lungs are only *stuffed*, or the *tubercles* that arise from that *stuffing* remain in a crude state, the person's life, though it be miserable, yet is not brought into any sudden danger, though he is troubled with an oppression of his chest, some difficulty of breathing, and a frequent cough."*

Dr. Malden argues strenuously and ingeniously in favour of the doctrine, which is

now very generally admitted, that, whatever be the nature and origin of pulmonary tubercles, inflammatory affections of the lungs hasten their progress, and give strength to their fatality.

Among the exciting causes, catarrh, bronchitis, measles, whooping-cough, pleurisy, carditis, &c. are the most common ; and the connexion between scrofula and phthisis leads our author to draw a parallel between the two diseases, which we shall give in his own words.

"Now, if upon inquiry it shall be found that, in degenerations (in other parts than the lungs) admitted to be scrofulous, the process commences by a loaded state of the vessels of the affected part, and that this state is followed by an interstitial deposit of tubercles, then I think it will be fair to infer that the process in the formation of tubercles in the lungs is similar.

I have examined, with great care, the external lymphatic glands, and the mesenteric glands, (two structures which may be considered peculiarly liable to scrofulous disease,) in various stages of its complaint, and have no hesitation in stating that the following is the course it pursues when it attacks these glands :—

A gradual enlargement takes place ; this is sometimes very slow, at other times faster. For some time after the commencement of this enlargement of the gland, it is found, when cut into, to have a preternatural *pinkness*, (there is no other word that will express the peculiar colour,) this pinkness, when it is examined with a magnifying glass, is found to be owing to innumerable small blood-vessels. At the same time that you meet with glands which have only this appearance, you will find others, in the same subject, which, upon close inspection, have, conjoined with the pinkness, small scattered white points in them, not larger than the smallest pin's heads. These little points picked out, are found of a cheesy consistence, and are, in all respects, similar to the tubercle of the lungs, in its first stage of softening.

If the disease be farther advanced, then

* "Phthisiologia, p. 119."

the quantity of this *steatoid* matter is increased; the gland assumes an irregular botryoidal figure; and when cut into, no longer exhibits the pink appearance before described, but contains small roundish masses of a whitish soft pulp, closely packed together, and divided from each other by delicate membranous bands.

As the disease goes on, these masses soften in the centre, and, gradually coalescing, form at last, a cavity in the gland, which contains a thin serum, (sometimes of a pink colour,) with which is mixed a soft curdy matter, and sometimes pus.

In the *tabes mesenterica*, children sometimes die of *marasmus*, in the first stage of the disease above described, and before the tubercular process has commenced.—Burns, in his chapter on this disease, describing the enlarged glands, expressly states that ‘these tend slowly to the formation of a cheesy substance, but death may take place before that process be accomplished.’—Burns’ *Midwifery*, p. 452.

The high vascularity of the ends of the bones, particularly of the cancellar structure, in the ‘joint evil,’ is familiar to all acquainted with this subject; and this increased vascularity is sometimes found with, and sometimes without, in interstitial deposit of tubercular matter.

I need not prosecute this part of my subject farther, since I have advanced enough to shew the great similarity, if not identity, of the morbid processes in *scrofula*, and tubercular ‘*phthisis* :’ and, notwithstanding all that has been adduced upon the opposite side of the question, I must confess that I think I am borne out by facts, when I state that a preternatural fulness of the blood-vessels of the part, precedes the tubercular degeneration in both instances. Whether this fulness be necessarily an adjunct of inflammation, I leave to others to decide.”

It is evident that though living in the same atmosphere, and even drawing their public experience from the same institution, Drs. Baron and Malden have come to opposite conclusions respecting the pathology of *tubercles*. At this, however, we need not wonder. A word or two respecting the

treatment of *phthisis*. Dr. Malden considers the following to be the most rational—namely, to equalize, by all the means in our power, the pulmonic and general circulation.

“These means are,—1st. The subtraction of small quantities of blood from the *venous* system at short intervals, in proportion to the strength and age of the patient, and other circumstances.—2dly. The maintenance, by warm clothing and other means, of a vigorous circulation in the *systemic* capillaries; and in particular, in those of the surface of the body (especially of the chest) and in those of the extremities.—3dly. The preservation of the due nutrition of the body, by maintaining a healthy action of the whole digestive apparatus, and giving, at proper intervals, bland nutritious food.—4thly. The avoiding of all the acknowledged *lædientia* in the inspired air.—5thly. The substituting, for walking exercise, exercise which does not produce much muscular pressure on the *valvular veins*, as this latter kind of exercise much assists the equalization of the circulation, whereas the former, as long as the lungs are oppressed, increases the mischief, by returning the blood to the right cavities of the heart faster than the lungs can bear it with convenience. Sydenham, who was a plain matter-of-fact man, would not have praised horse exercise in this disease so highly, if he had not found wonderful good effects from it.*—Lastly. Establishing sufficient drains from the parietes of the chest, by means varied according to the circumstances of the case. The ancients, although bad pathologists, as far as the light of morbid anatomy is concerned, were, on the whole, very fair practitioners; and the freedom with which they used the actual cautery in this disease, is worthy of remark.

**Exulcerandum est ferro candenti, uno*

* “I solemnly affirm that riding is as effectual a remedy in this disorder, as mercury is in the *lues venerea*, or the bark in *intermittents*, &c.—*Swan’s Sydenham*, p. 402.

loco sub mento, altero in gutture, duobus ad mammam utramque; item sub imis ossibus scapularum, quas *ομοπλατας* Græci vocant, sic, ne sanescere ulcera sinamus, nisi tussi finitâ.'—(Celsus lib. iii. cap. 22.)"

 LXI.

BATHS OF LIEBENZELL.

DR. BEATTIE, who accompanied our illustrious Sovereign and our amiable Queen, in three successive tours to the Continent, has published a journal of these tours, abounding in amusing anecdotes and interesting descriptions of the countries as well as the courts, where the Royal travellers sojourned, or through which they merely passed. The nature of the work did not permit our author to indulge much in mere medical matters, and therefore the contents of these volumes do not fall within the scope of our review. But, at this season of the year, when men and women are preparing to wing their flights to coast and country—to continents and isles, in search of health or pleasure, it may not be uninteresting to inform our readers—more especially for the benefit of their fair patients, that, in a certain part of the BLACK FOREST, there is a spring which has long been famous for specific virtues of a particular kind. From the days of Hubert the Hirsch-hunter, down to the present epoch, the waters of LIEBENZELL have been the regeneration of many a sinking house—making the wilderness of domestic love to blossom like the rose—the vine to put forth its season—and mothers, who sorrowed once to sing for joy! But let the poet VATTERKENDER, tell the praises of LIEBENZELL.

If thy house be falling, falling—

No son his father's name to tell;
No bud, maternal bloom recalling—

Send thy bride to Liebenzell!

Doth it prey upon thy spirit,

Lack of ties thou lov'st so well?
Thy hall shall rival branch inherit?

Send thy spouse to Liebenzell!

Then sprightly son and rosy daughter,
Soon thy tide of hopes shall swell!
There's joy in store, while there is water,
In the baths of Liebenzell!

The Minstrel sung, the Lady listened—
Then flew to try the magic spell:
Next Spring a son and heir was christened;
Bless the baths of Liebenzell!

 LXII.

MR. BRODIE ON CALCULOUS DISORDERS.*

WE give the following lectures in the form in which they were taken by a gentleman of Mr. Brodie's class. They will be found to correspond pretty accurately, no doubt, with those in our contemporary, the Medical Gazette, in which they have not yet appeared. We have done this in order that the subject might be completed in one Quarterly Number of this Journal, and that our readers might at once be in possession of what we cannot hesitate, for an instant, to designate as the most valuable series of practical lectures on the diseases of the urinary organs, which have ever been given by any lecturer to any class. Having now completed them we need say no more than that they speak their own best eulogy. A great number of valuable facts are communicated in a plain style without show or parade, and it would be well for surgery and for science if writings of this description were more numerous than they are. We trust that Mr. Brodie will long continue to favour the profession with the results of his extensive experience and keen observation. He must remember that he owes us yet the sequel of his former paper on "Injuries of the Head," and we hope, and venture to expect, that he will give more, although more has not been promised.

* Continued from the last page of the review department.

CALCULUS IN THE FEMALE BLADDER.

This is comparatively rare. The precise proportions of men and women affected, it would be rather difficult to ascertain, but I should say roundly about 1 woman to 15 men. The *symptoms* in women are:—frequent inclination to make water—pain in the extremity of the urethra—urine tinged with blood after exercise—urine undergoing changes, leading to the deposition of triple phosphate, or even phosphate of lime.

Sometimes there is in women a sort of *natural cure*.

In a female at St. George's Hospital, a stone of some size ulcerated into the vagina, and a fistulous opening was left. In another case the kidney looked, as I have already mentioned, as if it were converted into fungus hæmatodes.

TREATMENT OF CALCULUS IN THE BLADDER.

Detection of the Stone. The first thing is to find the stone. The symptoms generally inform you of its presence, but sometimes they mislead. You must examine the bladder by what is termed *Sounding*. The iron sound ought to lie loose in the urethra, filling but not stretching it. The patient should generally lie upon his back, with his shoulders a little elevated; sometimes it is better for him to stand. If the stone is large the bladder may be full; if small, it should be more empty. If the calculus be small, explore all the parts of the bladder; and if the symptoms be well marked, don't necessarily conclude that there is no stone because you cannot find one. Sometimes a gum catheter will detect a stone, when an ordinary sound will not. Introduce the gum catheter without the stilet, the patient standing, and the bladder being as full as possible; as the last drops of urine come away, the stone falls against the gum catheter; this is a very valuable method. Sometimes an examination with the finger in the rectum is useful, particularly in children, when the stone is of middle size. In adults it is of little service, unless the stone be large.

Means of learning the size of the Stone. If you try with care you may form a pretty accurate idea of the size of the stone. If this be not of long formation, it is usually composed of lithic acid or oxalate of lime. If the urine is alkaline, the last layer must be composed of the phosphates, and then the growth is more rapid. If the calculus has existed for very many years, you may conclude that it is a large one. The most precise knowledge is obtained by *measuring* the size of the stone with a sound. When there is water in the bladder, you may push the stone out of the way with the sound, and the force necessary to displace it may give you some notion of its comparative weight and size.

When a stone has been carried into the bladder, it may be washed away by the stream of urine, but sometimes this is prevented by an enlarged prostate. Persons pass kidney calculi for many years till they grow old, and the prostate becomes enlarged. Such a patient should make water in the attitude of leaning forward, by which the projection of the prostate is in some measure counteracted. The plan is good in theory, and, as I think, in practice. A patient whom I directed to make water in this way soon became relieved of a small stone which had lodged for some weeks previously in the bladder.

Dilatation of the Urethra—Diluents. When the stone is larger than the urethra, it cannot of course pass through it. But you may dilate the urethra, and that without delay. I introduce on one day a large sound or bougie, on the next day a larger one, and so on, dilating the urethra as far as I can. Then I give diluents, sometimes diuretics, as the spiritus juniperi compos. to procure as great a torrent of urine as possible. It is a good plan to introduce every day or every other day a full sized bougie into the bladder, and let it lie in the urethra. Then the patient drinks an abundance of diluents till the bladder is much distended, and there is a violent nîsus to make water. Then let the patient lean forward and strain to pass his urine; withdraw the instrument, the

urine comes away in a gush, and probably the stone with it. This plan was first suggested to me by a patient.

Urethra Forceps. If the former means fail, you may generally extract a small stone by the urethra-forceps, when there is no material alteration of the bladder preventing it from containing a fair quantity of urine, nor a large tumour of the prostate. This is one of the greatest achievements of modern surgery, due to Sir Astley Cooper and Mr. Weiss. In employing the urethra-forceps the bladder should hold $\frac{3}{4}$ vj. or $\frac{3}{4}$ viij. of water; indeed, many inject warm water into it through the catheter. It is generally prudent to ascertain first, by a sound, where the stone lies. Then introduce the forceps, lightly feel the stone, open their blades, and try to seize it; much force is not required. Sir Astley has removed a great many stones from the bladder with this instrument, and I have successfully employed it in many instances. The neck of the bladder admits of great dilatation, the urethra of less, so you may seize a stone of considerable dimensions by the forceps, bring it into the urethra, and extract it from that by a slight modification of an operation.

Case. A gentleman had stone in the bladder. I seized the stone, and drew it down for some way into the urethra, but then I could get it no farther. I seized the forceps with the left hand, made the stone project in the perinæum, cut down upon it, and extracted it through the wound. I repeated this operation once or twice without any assistance. The wound healed readily, a gum catheter being kept in the bladder after the operation.

Be cautious how you perform this operation anterior to the scrotum.

Case. A gentleman came to me with symptoms of stone in the bladder. I laid

him down, felt the stone, brought it with the forceps anterior to the scrotum, and, not being able to get it farther, I made an incision on it there, and cut it out. But the urine afterwards gravitated into the scrotum, and troublesome abscesses succeeded. I would, in future, only cut on a calculus behind the scrotum. I think we might improve much upon this operation.

I have already explained to you, that if you introduce a gum catheter, and draw off the contents of the bladder, where there is a small calculus, it very frequently happens, as the last portion of the urine flows, that the calculus is thrown down, as it were, on the end of the instrument. Then it occurred to me, that if a catheter could be made to open like a pair of forceps, the calculus would very probably fall into it; that if it did not do so at one time, it would do so at another time, and that thus it might be extracted without searching and irritating the bladder—with little or no pain to the patient, and little or no trouble to the surgeon. With these impressions on my mind, I contrived the instrument which I now shew you. It is a pair of forceps with two blades, the opposite surface of which are made rough, like a rasp or coarse file. They open by withdrawing a tube, which encloses them, on the principle of one kind of bullet forceps, or of the French lithontriptic instrument. But the forceps are themselves a hollow tube, so that whenever the blades are separated, they answer the purpose of a catheter; allowing the urine to flow out of the bladder. Since this instrument was constructed, I have had only one opportunity of employing it, and that very lately. A gentleman consulted me with slight irritation of the bladder. I examined the bladder with an iron sound, and detected in it a very small calculus. I then dilated the urethra to its utmost extent. This was easily accomplished, but the calculus did not come away. I introduced Weiss's original urethra-forceps, but the stone eluded my search. I therefore introduced my new forceps, the bladder being full of urine; and the blades being expanded, of course the urine flowed. When the bladder was

empty, I endeavoured to close the forceps, but I found that I could not do it. In fact, the stone was seized, and it was easily removed. It was of the size of a large pea, and the patient suffered not the smallest inconvenience from the operation.

Solvents—Injection of the Bladder.—If the stone is too large to be extracted by the forceps, what are we to do? Can we dissolve it? The phosphates out of the body are soluble in the acids—the lithic acid calculus in alkalies. But only very strong alkalies will act on lithic acid, and the patient cannot take enough to dissolve it. How absurd. A patient takes alkalies internally—the urine becomes alkaline in consequence—alkalies are deposited round the lithic acid—and the stone grows the faster. Sometimes lithic acid unites with soda, and comes away in fragments. The patient thinks that portions of the stone are coming away, but in truth it is a *new formation*. A gentleman voided a whole wafer-box full of fragments of lithic of soda.

It may be asked if you would inject alkalies into the bladder;—it will not bear them strong enough. Nitric acid dissolves the lithic acid calculus out of the bladder, but it is too strong to be injected into that viscus. But it readily dissolves the phosphates, even when diluted, and it is a question with me whether it may not be usefully employed when the bladder is in too diseased a state for operation, and the stone chiefly composed of the phosphates.

Case. A gentleman had long had stricture of the urethra, chronic inflammation of the bladder, and secretion of ropy mucus streaked with phosphate of lime. Above all things in the world he was ordered to drink lime-water. I introduced an instrument and felt one stone, if not several. The stone was evidently not the original disease, but the consequence of the stricture, and I supposed that it was composed of the phosphates. Small fragments being passed proved that it was as I suspected. I had a gold catheter constructed, with two separate tubes in it. I introduced it into the bladder, and, throw-

ing in a weak solution of nitric acid, through one tube, I let it run on by the other. I began with ℥j. of the acid to ʒj. of water but I afterwards increased the strength to ℥iij. but the average strength that could be borne best was ℥ijss. I went on injecting, sometimes for half an hour at a time, when the liquid would contain the phosphates abundantly dissolved. The strong liquor ammoniæ, used as a test, readily throws them down. I believe that the nitric acid employed in this way only dissolves the phosphates, and the ammonia separates them. Well, under this treatment, the mucus of the bladder was very much diminished in quantity, and its character improved. Matters went on well, and at last the patient voided these two stones. (Specimens in the museum.) He could now walk into the street, but after a time the symptoms returned, and the patient died in the country of diseased kidneys.

Case. A gentleman had diseased prostate, and chronic inflammation of the mucous membrane of the bladder, with several small calculi. I continued to inject the bladder, off and on, for 12 months, got rid of the mucus, and at length the patient could go for six or seven hours without passing his urine.

It is evident then, from the foregoing facts, that there are some cases of stone, in which injection of the bladder does good. But more than this, the injection does good to the bladder itself.

Case. A patient had calculus in the urinary bladder, and the urine was so ammoniacal that the room stank. I injected the bladder—the urine became comparatively healthy—I cut the patient—and he did well.

When the stone is of small size, and entirely composed of the phosphates, this injection may dissolve it. Under other circumstances dissolution is out of the question.

ON THE OPERATION OF LITHOTOMY.

The calculus is to be extracted by incision

of the bladder. You may cut into the bladder from above the pubes, or from the perinæum. The experience of surgeons is in favour of the latter method, but there are various modes of doing it. If a calculus is small, you may extract it by dilating the urethra. Now you can dilate the urethra to a certain extent, but no further, by bougies, and if the calculus is too large then to pass, you must dilate further by a cutting instrument. This you do by cutting in the perinæum, and incising the posterior part of the urethra.

And now of the method of performing the lateral operation of lithotomy.

External Incision. In the upper part of the perinæum the space for a cutting instrument is narrowed; in the lower it is broader. If you cut in the line of the raphé you endanger the rectum. You must incise the perinæum obliquely, gaining space and avoiding the rectum. This is the literal operation.

Points deserving of attention. I. Endeavour to have as little hæmorrhage as possible. I have seen two good lithotomists of this town each lose a patient. Believe me this is no bugbear. Some cut very freely, and they are in danger of hæmorrhage. Make no unnecessary incisions, and cut chiefly in the lower part of the perinæum, not too near the rami of the ischium and pubes, by which you avoid the branches of the pudic at their origin.

2. Make your incision so as to get room for the calculus in the lower part of the perinæum.

3. Don't make your incision at the neck of the bladder larger than is absolutely necessary; cut through the prostate, but *not beyond it*. This is of the very utmost importance. When you cut the prostate only, you cut no more than a solid substance, but when your incision extends beyond it, you cut into a loose cellular texture, sucking up the urine like a sponge. You know the symptoms that must ensue; the symptoms that ensue when the urethra gives way behind a stricture. Practically it is as you would expect.

Case 1. In 1810, a farmer was operated on by Sir Everard Home. The operation was done very rapidly; to a bye-stander it seemed remarkably dexterous. But, in opening the forceps, Sir Everard remarked that something gave way, as if a string was broken. In the night the patient was anxious, irritable. Next day the depression was greater—the pulse became rapid—the belly tympanitic. The patient died in 48 hours. On dissection, there was no peritonitis. The muscular and mucus coats of the bladder were lacerated half an inch or more, which was done, no doubt, when the forceps were opened. The cellular membrane was in a sloughy state, nearly as high as the kidney; in the lower part, about the incision, there was pus.

Case 2. In 1816, I operated on a child for the stone. The opening in the bladder was small, the stone large; I dilated the wound with a probe-pointed bistoury. In three days the child died, with low symptoms, tympanitic belly, &c. I had cut through the prostate into the cellular membrane, which was in a sloughy state.

A similar case occurred to Mr. Keate not a year ago.

Soon after the occurrence of the second case, I read Scarpa's work, in which he took the same views as myself. Since that I have had many cases which prove that an opening cannot be made into the loose cellular membrane with impunity.

Steps of the Operation. I generally introduce the staff before I bind the patient. The staff should be as large as possible, with a blunt extremity. Have four assistants, one for each leg, one for the staff, one for the head. The assistant holding the staff stands on the left side, his hand directed towards the right groin, the curve neither drawn too high nor depressed too low. The table should be about four feet six in height. The shoulders should be a little raised.

Then make your incision in the perinæum. Don't attempt to plunge the knife at once into the groove of the staff;—by so doing

you endanger the bulb, and cut too high and too near the scrotum, which may become infiltrated with blood or urine. The usual point for commencing the incision above, is about an inch anterior to the anus, and nearly in the line of the raphé; then carry the incision freely down to the space between the anus and the tuber ischii. Always direct your attention to the staff—it must be your guide—if you neglect it all is random cutting.

Cut into the groove of the staff behind the bulb, just at the membranous part. If you cut too high, you endanger the arteries of the bulb, &c. and have to divide more soft parts, in order to get into the bladder. If it be a child you may go on with a scalpel; if an adult, this is not a good instrument to divide the prostate, the point being likely to hitch in the groove of the staff. Cheselden finished the incision of the neck of the bladder with a common scalpel, and then introduced a blunt gorget along the staff, withdrew the latter, and carried on the forceps along the gorget. This I believe, from Cheselden's own account, to have been his operation, though Dr. Douglas's account is different, and no doubt incorrect.

Cutting Gorget. Sir Cæsar Hawkins invented the cutting gorget. I cannot recommend it. It requires force in its introduction, and is apt to slip out of the groove of the staff into the space between the bladder and rectum. I have known this happen to two experienced surgeons, and what has occurred to one may occur to others. This accident occasions death in a few days, by sloughing of the cellular membrane. On the whole, the gorget is not a safe instrument.

Mr. Brodie's method. In the adult I generally pass a scalpel, with a beak attached to it, along the groove of the staff into the bladder. *Never cut laterally*, with whatever instrument you employ; for you then don't know what you divide.

If the stone is large, why not cut both sides of the prostate? I then use a double-edged scalpel. Whichever you employ,

get the beak into the groove of the staff, taking care that there is no cellular membrane, &c. in the groove. Then take the staff in the left hand, depress the handle, and at the same time the handle of the knife also, by which you cut low in the perinæum. Slide the knife along the groove, feeling the latter all the way. You reach the bladder—a little urine flows: you withdraw the instrument. Then pass your finger into the wound and feel the stone. If it be a child, or a thin perinæum, you can pass the forceps in at once; if not, introduce into the bladder, along the groove of the staff, a blunt gorget, larger or smaller according to the expected size of the stone. You have *nicked* the prostate; the gorget *splits* it up with ease not dividing the firm capsule. The gorget being in the bladder, withdraw the staff. If possible, introduce the finger along the concave surface of the gorget into the bladder, and explore it. The best way to introduce the finger, is to turn the concave of the gorget towards the left side of the patient, by which you obtain room.

Have forceps of various sizes in readiness. Oil and warm them—introduce them carefully upon the gorget, and then withdraw the latter; feel for the stone with the forceps—open them cautiously and seize the stone. If the bladder is flaccid, there is little danger of lacerating it in opening the forceps; if it is contracted there is more. Try to ascertain the size of the stone, and then endeavour to seize it in its short diameter. If it be a fusible calculus, it is very soft, and easily broken; be guided in this.

In withdrawing the forceps, turn the blades upwards and downwards, in the direction of the external wound, not transversely, for then the stone will catch against the prostate, and the latter acts as a valve preventing its withdrawal. Take time—use moderate force only. If the stone is soft, introduce between the handles of the forceps a piece of wood, or another pair of forceps, and push them against the joint of the forceps, whilst attempting to extract the

stone. This will prevent you from crushing it.

If the stone is polished, you may be sure that there is another. Introduce your finger, or a bladder sound, in order to ascertain.

Sometimes a stone is lodged in some fold of the bladder, behind the pubes. Then introduce the forceps, open their blades transversely as wide as possible, and thus you dislodge the stone, which falls between the expanded blades. If the stone is lodged in the fundus, behind the prostate, employ curved forceps. Use small forceps for small stones, or a scoop; if the stone is broken into many fragments, wash out the bladder with a syringe.

I shall speak of hæmorrhage in the next lecture.

After the operation. Place the patient in bed with the shoulders a little raised, a draw-sheet under him, a bolster beneath the hams, and the knees *not* bound together. The urine always flows at first through the perinæum, and the first two or three gushes give much pain, which afterwards ceases. When there is a deep perinæum, it is a very good plan to introduce an elastic gum catheter into the bladder through the wound, and I think it lessens the danger of urinous infiltration.

After treatment. This is generally very simple. If there is pain in the belly, have recourse to a fomentation and a few leeches. Aperient injections are better than purgatives—dressings are of no use, as they get sopped in urine. When there is a fusible calculus, and especially where it has been broken, more attention is required. There has previously, in this case, been chronic inflammation of the bladder, and, therefore, there is a liability to another calculus. This is much more likely to take place where the calculus has been broken.

After two or three days you may introduce a gum catheter into the bladder, (when the calculus has been of the fusible kind,) inject through it tepid water, and so wash

out the mucus and sand which issue through the wound in the perinæum.

When the *prostate is enlarged*, I use a large silver catheter, with an eye four times the ordinary size, and inject tepid water daily for a length of time. The fragments escape through the large eye of the catheter, and I have thus saved patients from the reformation of calculi. Besides this you must adopt the treatment already recommended for chronic inflammation of the bladder. It is an evil certainly for a *stone to break*; yet, if very large, I would purposely break it. The operation is thereby prolonged, but the neck of the bladder is not so much injured and wounded.

Adherent Calculi. You never meet with them except where the calculus is encysted. Even the latter is rarely met in operations, because encysted calculi occur in diseased bladders, and in cases not fitted for operation. I had one case of this kind in the hospital. The patient was a boy; sometimes I could feel the stone—sometimes I could not. I employed the cutting gorget. On cutting into the bladder I could at first feel no stone; but, having explored the interior of the bladder very carefully, I found, an opening above the pubes, and in it a calculus. I nicked the side of the cyst, and then could peel it from the stone, a portion coming away sticking to it. There was much constitutional disturbance, but the patient recovered.

ON DEATH FROM LITHOTOMY.

I cannot too strongly recommend to you the study of the cases that prove fatal. It is from them that you may learn how to prevent other cases from proving so.

Too free division of the prostate is one cause of death. What are the consequences of this too free division? At first the symptoms are not well marked. There is some heat of skin, quickness of pulse, want of sleep; but the more characteristic symptoms seldom begin later than 24 hours

after the operation. They commence with shivering, pain in the loins—the pulse rises—the tongue grows white—the patient still retains his intellects. Now there is some pain in the pubes and left groin—the pulse has a weak beat and intermits, at first, perhaps, once in 40 strokes, then in five or six—there is hiccup, and, if there was no shivering at first, there is shivering now. The belly becomes tympanitic, and, in consequence of the tympanitis, tender. The symptoms go on—generally there is delirium, but occasionally the patient retains his senses to the last, and now death closes the scene.

On dissection, you find the intestines distended with air, but no general peritonitis, except just at the lower part of the belly, where the peritonæum is reflected from the rectum to the bladder, and where, perhaps, it is a little inflamed. The cellular membrane of the pelvis is sloughy, inflamed, putrid, and here is the mischief. You may think that peritonitis is common after lithotomy, and the profession generally do think so—but it is not the case. It is this *sloughing of the cellular membrane* that is frequent, and that is constantly mistaken for peritonitis. Don't make this mistake; if you do, if you bleed or purge, the clock runs down the faster. Give, at first, salines, with a little excess of ammonia; then opium, wine, brandy, &c. Adults very seldom recover—children occasionally do so. After presenting these symptoms for two or three weeks, one child recovered, a putrid abscess bursting into the wound. Another child recovered, a slough giving way into the rectum.

Surgical Treatment of this affection. I will mention to you a case.

Case. In a patient whom I lithotomized, I used Mr. Blizard's knife, an abominable instrument. I cut through the prostate gland, and all seemed right to the lookers-on. I felt uneasy. In 36 hours there were suspicious symptoms; in 48 hours they were well-marked: there were intermitting pulse, tympanitic belly, manifestly mischief in the cellular membrane, round the neck of the bladder. I introduced my finger into the

rectum, and passed Savigny's probe-pointed bistoury up the wound to its left extremity—then I pushed forward the moveable sharp point, divided the coats of the rectum on my finger, and cut outwards with the point resting on my finger, exactly as you operate for fistula ani. The intermissions of the pulse grew less frequent, then ceased, and ultimately the patient recovered.

Hæmorrhage. This is another cause of death after lithotomy. I have myself seen three patients die of hæmorrhage. One was a patient of Sir E. Home's; he died when I was house-surgeon. A patient of an eminent lithotomist died. The third was a patient of my own, and in him the hæmorrhage was venous. I have heard of other cases, though I have seen no more.

Division of Pudic Artery. Many years ago Sir E. Home operated on a patient for stone. In half an hour after the operation I found the patient apparently dying from profuse hæmorrhage, which was still going on. I brought the patient with his perinæum to the light, and finding that pressure on the pudic artery stopped the bleeding, I tied it, by passing a curved silver needle between it and the bone. The bleeding was arrested and did not return. In a private patient the hæmorrhage was only stopped by an assistant's keeping his finger on the pudic artery for five or six hours together.

Sometimes there is hæmorrhage from the neck of the bladder. The best way under such circumstances, is to introduce the longest finger into the rectum, and press on the neck of the bladder. You should previously pass a canula into the wound; it serves for a point d'appui, and lets out the blood, &c.

DEATH FROM EXHAUSTION.

Case. A patient underwent a tedious operation, the stone breaking, the perinæum deep, the man very fat. He was put to bed, and died with symptoms of exhaustion.

A long operation is always hazardous.

Sometimes the patients fall afterwards into a deep dose or state of coma, and though they sometimes recover, they often die.

Persons affected with organic disease are, of course, not such good subjects for lithotomy, as those who are not so affected. But organic disease of other organs is not near so important as the sound or unsound state of the urinary organs.

With enlarged Prostate. I don't think that an enlarged prostate is of any material consequence, for patients who have it do very well. But when the prostate is ulcerated, never operate. I have seen it done in three instances, and in each fatally.

With Chronic Inflammation of the Bladder. Chronic inflammation of the mucous membrane of the bladder is a serious, but not a fatal objection. If the inflammation of the bladder is acute they die.

Case 1. Such a patient, on whom I operated, did pretty well for a week, then fell into a low state, and died. The inflammation extended up the ureter, and mucopurulent matter was found in the pelvis and infundibula. I operated against my own judgment.

Case 2. Another patient died four or five weeks after the operation. There was inflammation and suppuration (?) in the cellular membrane all round the bladder.

With Abscess in the Kidney. If there be abscess in the kidney, the patient is sure to die. Inflammation of the kidney, independent of abscess, confers danger. When there is pain in the loins and across the lower part of the belly—languor and utter listlessness—hands and feet chilly—urine albuminous; when there are these symptoms the case is a bad one for operation. But if the urine contains pus, or any thing approaching to it, the case is still worse. More frequently patients operated on with abscess of the kidney, die after a certain length of time, having apparently recovered from the operation.

Case. Sir E. Home operated on such a patient. He said during the operation that something had burst in the loins. He died in three days. On dissection an abscess was found to have burst into the cellular membrane, behind the peritoneum and below the kidney.

Generally they die several weeks afterwards with the usual symptoms of suppuration in the kidney.

Age. Children generally do well. Persons between 70 and 80 do better than those between 50 and 70. Such is my experience, and such is that of the Norwich Hospital.

Stones lodging in the Urethra. Stones sometimes lodge in the urethra. You may take them out. Sometimes they lodge and grow there. I took out two such calculi, the urethra having burst behind the posterior, and having given rise to effusion of urine.

HIGH OPERATION.

This is very ancient. Since Cheselden's time the improvement has been introduced of leaving a gum catheter in the urethra and bladder. I have seen it done several times, and it was always what I call a bungling operation. It is more difficult, more hazardous, unjustifiable, except where the stone is too large to be removed by an incision in the perinæum. In such a case I think the recto-vesical operation is more applicable. I have always thought so since the occurrence of the case in which I divided the rectum for sloughing of the cellular membrane in the neighbourhood of the bladder. I lately performed such an operation, and though the stone was smaller than had been anticipated, I extracted it, and might have removed a larger with the greatest ease.

Case In this instance I cut into the bladder in the usual way, then introducing the fore-finger of my right hand into the rectum, I passed one of Savigny's probe-pointed

bistouries into the wound, pushed the sharp point forwards, and dividing the rectum on my finger, drew the bistoury and my finger out together, exactly as in the operation for fistula ani. The opening into the rectum was not made to correspond exactly with the wound in the bladder, but a sort of valve formed by the parietes of the latter, was interposed between them. I did this to avoid, as far as possible, a vesico-rectal fistula.—The patient died after ten days or a fortnight—with a large abscess in the pelvis. I believe, from other cases to which I have already referred, that this abscess existed previous to the operation. The fact is, that I cannot draw any satisfactory inference from this case one way or the other.

Prostatic Calculi. Stones sometimes form in the ducts of the prostate gland. They are composed of phosphate of lime, and formed by the secretion of the prostate.—Their surface is smooth, like satin. By-and-bye they increase, and are collected in a sort of bag in the prostate; they pass forwards, and some are rejected by the urethra, whilst some get back into the bladder, excite chronic inflammation, and become encrusted with the phosphates.

Treatment. Introduce a bougie into the urethra to keep it open and expanded for the passage of a stone. If there are many in a cyst you may extract them by Weiss' forceps. If they are in the bladder, lying and growing there, you may pick them out of it by the same. No medical treatment, that I know of, will prevent the formation of prostatic calculi.

LITHOTOMY IN THE FEMALE.

I have already explained how women are less liable to the formation of calculi in the bladder than men. The causes are briefly these:—their large urethra—temperate mode of life—and absence of enlarged prostate to retain the calculus in the bladder.

referred to the extremity of the urethra, and the symptoms in all other respects resemble those in the male.

Operation. You may remove the stone by a cutting instrument. Introduce a straight staff through the urethra into the bladder, then along it a knife, or, what is better, a bistoire cachée;—turn the cutting edge of the bistoire downwards and to one side, and withdraw it, by which you divide the neck of the bladder and urethra. This operation is not dangerous, but women are subject afterwards to incontinence of urine. Mr. Hey recommended the introduction of a sponge into the vagina, after the operation, to keep the sides of the wound together. I tried this in a female child in the hospital, yet nevertheless there was incontinence of urine.

Division upwards. It has been proposed to divide merely the membranous part of the urethra upwards towards the pubes, and then to dilate the passage without cutting into the cellular membrane. I did this in one instance, and, although the patient could not retain her urine so well as before, there was no incontinence of it afterwards. Mr. Hodgson has seen several cases in which this plan succeeded, and I believe that, when you employ a cutting instrument, this is the best method.

Dilatation. This was commonly employed a century ago, but it fell into disuse and was forgotten. It was revived in this manner. Mr. Thomas was called to a lady, who, by some means or other, got a silver toothpick in her bladder through the urethra.—Mr. Thomas introduced a sponge-tent into the urethra, then got in his finger, and by means of that and the forceps he extracted the tooth-pick. Sir Astley Cooper next removed a stone in the same manner.

A lady applied to me with a stone in the bladder. I introduced three sponge-tents in succession, and could easily insert my finger. I extracted the stone.

Mr. Weiss has invented a dilator infinitely better than the sponge-tent. By it you may

dilate the urethra, so as to extract a pretty large calculus. For one of moderate size you may dilate gradually for 24 hours. A surgeon did it suddenly, and the patient nearly died of what he thought was peritonitis. In my cases the patients did not ultimately suffer from incontinence of urine, though they had some for a time after the operation. The same thing occurred, I believe, in the cases of Sir Astley Cooper and others. I have heard, however, of cases, in which there was incontinence left. On the whole I prefer dilatation to cutting.

LITHONTRITY.

Mr. Key demonstrated the facility of using a straight staff in the operation of lithotomy; and much about the same time the French surgeons employed straight instruments in the treatment of stricture of the urethra.—The French surgeons have now arrived at the use of a straight instrument which shall seize the stone and grind it in the bladder. I never myself employed this instrument, and therefore can only make a few general observations on the operation of lithontrity.

In this operation there is no cutting, which to a patient is a great point—it is not much of an operation—the patient generally suffers little. This is the *favourable* side of the question.

But sometimes there is considerable pain—the operation is not always done at once—if extreme caution is not used a fragment may be left behind in the bladder—it is not applicable to large stones, or large prostates. This is the *unfavourable* side of the question.

Although the operation is generally safe, it is not always so. All the circumstances which render the common operation hazardous render this hazardous also. Yet, after all, it is a great improvement in modern surgery. In ordinary cases it is attended with little danger, and not much pain. The patient does not always drive the operation off, like lithotomy, and that is a great recommendation. Unfortunately this operation does not relieve us of those cases in which

we dread the lateral operation; it is only applicable to a limited number of cases. In those to which it is applicable it is a very nice operation; but a man must devote himself almost entirely and exclusively to its performance.

LXIII.

ANATOMICAL MODELS.

WE have again to invite the attention of our brethren to the anatomical models imported into this country from Germany, by Mr. SCHLOSS, who has removed from Southampton Buildings, to a more central, if not more fashionable situation, No. 103, St. Martin's Lane, Charing Cross. Mr. S. has been encouraged to undertake the importation of such novelties in foreign literature, arts, and sciences, as are deemed worthy of the approbation of the profession of this country. We have no doubt that he will receive the patronage of the public in these laudable attempts to accommodate them.

LXIV.

PATHOLOGICAL ANATOMY OF THE BRAIN, SPINAL CORD, AND THEIR MEMBRANES, with 13 coloured plates. By W. P. COCKS. Octodecimo. Highley, 1831.

THIS is really a very meritorious little pocket-companion, condensing in a very small space, the essence of our knowledge, up to the present time, respecting the morbid anatomy of the parts above-mentioned. "The motive which led to this undertaking, was the great expense of coloured drawings on subjects essentially necessary for the student, and it is hoped that these plates, coloured after Nature, may be refreshing to the memory even of the more advanced inquirer. It frequently happens that the best written descriptions fall short of that power to identify which the pencil conveys,

and with this feeling, the author, in the prosecution of his pathological researches, has made it his practice, for years past, not only to take written notes of all his post-mortem examinations, but sketches also of every change in the structure that has appeared at all remarkable or unusual."

We have not seen any little *vade mecum* of this kind so well calculated to fulfil the design of the author as this small volume of Mr. Cocks.

LXV.

ON INFLATION OF THE BOWELS. By ARCH. BLACKLOCK, late Surgeon, R.N.

IN a preceding article of the present No. of this Journal, one of our reviewers treated the subject of "inflation of the bowels," as proposed by Mr. King, of Irvine, perhaps with a little more levity than was proper, though the value attached to the remedy, by Mr. K. was certainly set forth with rather extravagant pretensions. In the 14th No. of our Glasgow contemporary, we find another communication on the same subject, from the pen of Mr. Blacklock, of Dumfries, which induces us again to notice *artificial* inflation of the bowels as a remedial agent, though the *natural* inflation is one of the most common and distressing symptoms attendant on many diseases. But on this point we shall make a remark or two presently. So long ago as 1820, Mr. Blacklock communicated to the Editor of this Journal the fact of his readily removing intus-susceptions (where no adhesions had taken place) in the dead body, by means of injections of air per anum. It is alluded to in our Quarterly No. for April, 1820, article "Ileus." Since that time, he and other practitioners in his neighbourhood have frequently resorted to this process, in cases of obstinate obstruction of the bowels. One of these cases was Mr. Blacklock's own son, then about three years of age, who, during nine days, remained without any passage through the bowels, notwithstanding the

employment of various purgatives and numerous enemata. Recourse was ultimately had to inflation, when the little patient cried out for the commode, and had a free evacuation. After a few minutes the inflation was repeated, and was soon followed by another faecal stool. The boy rapidly recovered, and is now living and in good health.

The great inconvenience, or indeed misery, produced by flatulence in the stomach and bowels, is, perhaps, a less valid objection to the artificial inflation now under consideration, than might at first sight appear. In the first place, it is to be remembered that the gas disengaged in the *primæ viæ*, during indigestion and other disordered states of the digestive organs, is very far from being identical with common atmospheric air. This has been proved by chemical analysis—but still more certainly by common observation. The gases generated, in such conditions of the alimentary canal, are not only various, but many of them appear to act as acrid, or at least deleterious poisons, during their stay in the first passages. They are more distressing, also, in proportion as they are situated higher up in the alimentary canal. In the stomach and duodenum, they are far more inimical to our feelings and health, than in the small intestines—and in the *latter*, they are infinitely more difficult to bear than in the colon. The morbid and indescribable feelings resulting from the extrication of gas in the stomach, are very imperfectly known, and not at all appreciated, in a proper manner, by medical practitioners in general. Even when the eructated gas is perfectly inodorous and tasteless, its presence in the stomach produces, in many instances, the most terrible sensations. But it is the nature of these noxious gases to keep their station resolutely in the localities where they are generated, by producing spasmodic constriction of the tubes both above and below them. They are then pent up, and their presence not always, or even often, suspected or known. These and many other considerations which we could adduce, may lead us to suppose that the introduction of common atmospheric air into the colon, or even into the small intes-

tines, will be unattended with the inconvenient or injurious effects resulting from aerial or gaseous products of disordered digestion. If medical men were to make experiments on their own persons more frequently than they do, their patients might be benefited and their own sphere of knowledge very much extended. It would be well worth while to try the substitution of common air for warm water, in cases of constipated bowels; for if the former fluid answers as well as the latter, the facility of its employment in all situations would be an immense advantage. We intend to experiment on this point of practice, and solicit our medical brethren to do the same, and to communicate the results of their observations to the public.

LXVI.

ST. GEORGE'S HOSPITAL.

IMPERFORATE ANUS, WITH MALFORMATION OF THE GENITAL ORGANS. OPERATION UNSUCCESSFULLY PERFORMED.

MANY cases of imperforate anus have been recorded: in some, operations devised and performed for the purpose of remedying this serious deformity have proved successful, in others they have not. As these cases are not sufficiently common to be witnessed by all practitioners, the following short memorandum of one which lately occurred at this hospital may not prove altogether uninteresting.

A male child, 12 hours old, was brought to the hospital, at 6, p. m. of the 20th May, with imperforate anus. No cul-de-sac, no vestige of an outlet was to be seen, neither was any distinct impulse communicated to the finger in perinæo when the child coughed or cried. The penis, instead of being anterior to the scrotum, divided it into two equal halves, and was rather posterior to it; and the opening of the urethra was more

than naturally approximated to the region of the anus. There was also a redundancy of prepuce on either side of the glans. Thus there was evidently an attempt at an anus by the change of situation in the urethra. On introducing a probe, it passed without difficulty into the bladder, and was tinged by meconium. Air, also, and urine, stained with meconium, were voided by the urethra. The child was well formed in other respects.

The case was not a promising one for an operation; but without one the child must ultimately die. The child being placed in the position for lithotomy, an incision was made by Mr. Keate in the natural situation of the anus, and a hydrocele trocar was passed in the natural direction of the rectum. It was introduced about an inch and a half or two inches, but no gut was found, no meconium flowed. The trocar was withdrawn, the canula left, and, through the canula, a probe was passed up higher than the trocar had gone. On its withdrawal, the point appeared coloured by meconium. A gum catheter was introduced into the wound with proper precautions, and retained by means of tapes. No evacuation passed through it.

The little patient passed a pretty quiet night, and sucked freely. No meconium passed through the tube. Next morning a little lukewarm water was cautiously injected, but, not returning readily, the attempt was abandoned. A stilet was passed through the gum catheter, but still no meconium issued. The child continued to take the breast, and exhibited no bad symptoms. On the following morning, a larger gum catheter was substituted for that previously in the wound, and a little more warm water was injected, but no meconium followed. This was discharged pretty freely with the urine, and the end of the gum catheter appeared a little smeared with it. In the afternoon, the infant's belly became swollen and tympanitic—it refused to suck, and in the evening it died.

On examination of the body, it was found that the rectum terminated in a conical or

funnel-like manner in the inferior fundus of the bladder, just above the prostate, by a very small and nearly circular opening. The bladder itself, as is the case in young subjects, rose high above the pubes, and of course had carried the rectum up with it. The lower part of the rectum was distended with fluid meconium; its termination in the bladder was situate about an inch and a half from the perinæum. At its inferior part, nearly opposite to its termination in the bladder, the posterior wall of the rectum exhibited a small puncture, not sufficient to evacuate the contents of the gut. This had probably been made by the stilet.

The gum catheter, and in the first instance the trocar, had passed in the cellular membrane between the rectum and sacrum, pierced the upper portion of the meso-rectum, or rather the meso-colon, and lay partly in the peritoneal cavity. No viscus had been injured. There was some peritoneal inflammation, vascular injection and coagulated lymph, but not a drop of fluid was collected in the abdomen.

In this instance the trocar being passed in the *natural* direction of the gut had gone wrong, for the rectum was carried forwards and upwards towards the pubes by the bladder. At the same time, the puncture in the gut made by the stilet shews how very narrowly it had escaped the trocar and canula. In such a case as this we cannot doubt the propriety of Mr. Copland Hutchison's advice, to wait for a certain period before attempting an operation, in order that the rectum may become distended with meconium. When this is discharged by the urethra it is almost certain that the rectum is removed more or less from the sacrum, and a curved trocar following the axis of the pelvis, but directed somewhat towards the bladder, would in all probability penetrate it. In these cases of malformation, however, so many varieties occur, that a successful operation is frequently rather a lucky hit than the result of rule.

II. RUPTURE OF THE LIVER—PERITONITIS —DEATH ON THE 13th DAY.

Samuel Thorne, ætatis 17, was admitted into the hospital under Mr. Hawkins, at 7 a. m. of the 16th of March, 1831, having just fallen from a scaffold 30 feet in height. On admission he was in a state of collapse, cold, almost insensible. A very small quantity of warm brandy and water was given to him, and he was placed as quickly as possible between blankets. On his rallying, which soon took place, an examination was made. No injury of the ribs or thoracic viscera was detected, but the chief tenderness and injury appeared to be seated in the abdomen. At 2 p. m., he had not recovered much, but the abdomen was rather more prominent, tense, and tender. At 6, p. m. this symptom was increased, the breathing was more hurried, he lay on the left side with the knees drawn up, and the pulse had slightly risen.

Hirud. vj. abdomini. Postea fotus. II. salin, c. Tr. hyos. 5ss. Vin. ant. tart. ℥xx. 4tis. horis. Diata febrilis.

The pain was relieved but had returned next morning. The pulse was frequent, the tongue loaded; he had vomited in the night. *Hirud. vj.*

At 2, p. m., 12 more leeches were applied, and the patient having been sick during the day whilst the symptoms continued, six more were applied in the evening. In the morning of the 15th, six leeches were again employed, and the bowels not having been opened an injection was thrown up, though with little success. In the evening six leeches; on the next morning four leeches, and an injection. The skin was now, the third day after the accident, becoming yellow, the belly was tense and full, with an appearance of deep ecchymosis on its left side, the pulse was frequent and soft. The patient occasionally vomited bilious matters. Some arrow-root was allowed, and small doses of calomel and Dover's powder exhibited every four hours. In the evening six leeches, and on the following afternoon five more. Motions were procured by injections, and on the 21st the powders were

omitted. On the 22d the patient was much purged, had vomited stercoraceous matters, and exhibited aphthæ on the lips and tongue. Light bitter infusion—beef tea—arrow-root, and starch injection.

On the 25th tympanitis came on, accompanied with very distressing sense of distention of the belly. There was still occasional purging, restrainable by an opiated starch injection. On the 26th the heart was observed to be deflected a little towards the sternum, and pushed upwards, the tympanitis was distressing, the patient much reduced. He was ordered a little wine and jelly. Several attempts were also made with Weiss's and Read's syringes to pump out the air through the rectum, but without the slightest success. On the 27th he vomited nearly every thing, and said that he could swallow nothing. On the 28th he appeared to be sinking and required brandy. The sickness continued. The heart pulsed between the second and third ribs. He did not die till the 30th.

Sectio Cadaveris. The body was very yellow, the abdomen much distended. Some slight ecchymosis was observed in the anterior mediastinum, but no other effect of injury was detected in the thorax.

In the abdomen the intestines and other viscera were matted together by recent lymph and false membrane. In the interstices between the viscera, &c. on the right side, and in the epigastric region, was a considerable quantity of very yellow serum, with bile somewhat altered in its appearance and probably in its composition. On the left side was a considerable quantity of bloody serum, and some coagula of blood, confined also by the adhesions, &c. No rupture of any of the floating viscera could be detected.

The liver presented some ecchymosis on its concave surface, and on examination it was found to have been ruptured rather extensively. The line of laceration was confined to its right lobe and to its convex surface, and extended irregularly from behind forwards and towards the right side. One fissure, the sides of which had become perfectly united by organized blood and lymph,

extended to the sulcus for the gall-bladder, but did not enter it. Another branched off to the right and blunt extremity of the viscus. Here the process of reparation was not so complete, for the injury inflicted had been greater. The sides of the laceration were wider apart, and though the uneven surface was now sealed with lymph coloured by bile, yet blood and the bilious secretion must have escaped freely by this laceration. The texture of the liver was pale throughout; there were false membranes of course around it and about it. The preparation of the liver is preserved in the museum of the hospital.

Though a celebrated author has said that a deep wound of the liver is as fatal as if it were of the heart itself, yet facts sufficiently prove that wounds of lesser severity have not unfrequently been recovered from. A bullet has been found in the gall-bladder, where it must have lodged for a length of time, and the case published by Mr. Fryer of Stamford, as well as those related by Dr. Hennen and others are sufficient evidence of the fact, as we stated it. There is nothing very astonishing then in the present patient's having survived for 14 days, but the case is interesting as displaying the symptoms occasioned by this dangerous accident, and the dissection is interesting also as exhibiting a good instance of the reparative efforts of nature.

III. INJURY OF THE LUNGS—RECOVERY.

FRANCES WHITE, æt. 13, was admitted into the hospital under Mr. Hawkins, at 6, p. m. of the 6th April. Half an hour previously she had been run over by a cabriolet, but neither she nor those who brought her could give any account of the precise manner in which she was injured. On her admission she was rather low, but not in a state of absolute collapse. She complained of pain in the chest, but did not refer it to one side in particular. There was some tenderness on pressure at the junction of the false with the true ribs on the left side, but no fracture could

be distinguished. She lost a little blood from the nose.

At 10 p. m. the pulse was weaker, the extremities were cold, there was collapse, with great pain in the chest.

Mist. æth. ʒss. Liq. opii sedat. Mlx. M. o. ½ horà dum perst. collapsus.

7th, 2, a. m. Reaction. Complains of great pain in left side of chest, extending to spine, with cough, and hurried breathing.—Says she had cough before the accident.

V. S. ad ʒx. Omr. haust. Æth. comp.

4, a. m. Was relieved by the bleeding, but pain is still considerable—pulse weak.

Haustr. Liq. ammon. acet. c. Vin. ant. tart. ʒss. Tr. hyosciami, ʒss. 4tis horis. Potus frigidus tantummodo.

10, a. m. Dyspnœa and pain increased—cough continues—generally lies on the left side with the knees drawn up—spits globular masses of blood rather florid, and mixed with air bubbles. Pulse has again risen—bowels not yet opened.

V. S. ad ʒviij. Haustus sennæ, ʒiss.

6, p. m. Was relieved by the bleeding, and the pulse was kept down by it until this afternoon, when it again began to rise.—Much pain and dyspnœa—tongue moist—bowels only scantily opened.

V. S. ad ʒvj.

10, p. m. The blood taken this morning and at 6, p. m. was cupped and shewed some buff. That drawn at first of course did not. Has again exacerbation of pain, and the pulse has risen—bowels not open.

V. S. ad ʒvj. Hyd. sub. Pulv. ant. Pulv. scammon. sing. gr. v. statim. Haust. sennæ post horas tres.

8th, 8, a. m. Was relieved by the bleeding. One cup shows but slight and nearly transparent buff, and loose coagulum.—Still spits small globular masses of blood, now mixed with a little bronchial mucus—much pain in left side—pulse frequent, without force, tongue rather white—bowels not opened.

Hirud. x. lat. sinistro. Haust. sennæ.

10, a. m. Vomited her draught—bowels not opened. Was relieved by leeches, but now looks depressed.

Enema avenæ tenuis c. H. sennæ. ʒiss.

10, p. m. Was much better this afternoon, and spat merely mucus very little blood-stained. This evening a fresh attack of pain came on, and there is now a febrile exacerbation.

Hirud. viij. lat. sinistro.

9th, 4, a. m. Still complains of great pain.

Adde haustui salin. antea prescripto tr. camph. c. ʒss.

9th, 4, a. m. Still much pain—more mucous blood-stained expectoration—pulse more frequent—skin warm—tongue moist—bowels not open.

Hirud. viij. lat. sinistro, Enema Aven. c. ʒj.

H. sennæ, ʒss. Calomel, gr. iv. Pulv. jalap. gr. xij. Ml. h. n. s.

10th. Bowels were freely opened by powder—less frequency of pulse and heat of skin—has suffered and still suffers from much pain in the back and right side of the chest.

Adde haustui Syrup. papav. ʒj.

Vesp. Pain still continues.

Fotus assidue c. Dec. papaverum.

11th. Pain much relieved—still cough—expectoration muco-purulent, not very copious and rather bloody.

Broth—arrow-root.

On the next day she was allowed some beef-tea, and on the 12th she appeared convalescent, the sputa being mucous and free from blood. On the 15th she had a fresh accession of pain in the chest, dyspnœa, cough, and expectoration of brown and evidently blood-coloured mucus. The blood did not appear to be recent, but rather to have been effused for some little time in the substance of the lung; it had no offensive smell.

V. S. ad ʒvj. (she fainted on ʒiij. being taken.) P. c. Haust. ut antea, 6tis horis.

2, p. m. *Hirud. x. lat. dextro.*

Vesp. Pain and other symptoms relieved by the depletion—rather sick from the medicine.

On the 17th the expectoration was trifling, and not decidedly bloody; the symptoms of inflammation were removed. On the 17th she was allowed some beef-tea, on the 19th a chop and the draught were only given twice daily. She gradually recovered, was ordered some sulphate of quina on the 29th, and

on the 10th of May was discharged the hospital. At this time she had scarcely any cough, but looked pale and very delicate, and did not expand her chest very perfectly. We regret that we made no stethoscopic examination. Several of the girl's family had died of phthisis.

We have given a full report of this case, because it seems to shew, in a clear manner, the progress of symptoms, and the influence of treatment. That the lung on the right side was more or less ruptured we suppose there can be no question, nor can any doubt exist of the supervention of pulmonic inflammation. The case is interesting in a practical point of view, and the result is satisfactory. If the injury was not so extensive, nor the inflammation so intense, as in many of the instances recorded in the annals of military surgery, yet the patient was a delicate child of a strumous habit and with a phthisical tendency, to whom the abstraction of half a pound of blood would prove as serious a loss as that of half a dozen to a robust young soldier, or a hardy veteran. It is a curious, but by no means an inexplicable fact, that wounds of the thorax have always been found comparatively seldom followed by fatal consequences. Dr. Gregory was in the habit of stating in his lectures, that of twenty-six wounds of the thorax received at the battle near Quebec, two only were fatal. There are two lungs, and when one is injured, the other may be made to ease it of much of its duty ; besides which, the lung is so vascular, supplied so peculiarly and directly from the venous system, that in depletion from that system promptly begun and boldly pursued, we possess an agent of the utmost power in controlling the traumatic inflammations of the organ.

IV. SIMPLE FRACTURE OF THE LEG—TRAUMATIC DELIRIUM—DEATH—ULCERATION OF THE BOWELS.

EDWARD EAMES, æt. 52, was admitted under Mr. Keate, at midnight, of the 30th December, 1830. It was during the severe frosty weather, and the accident had happened from his falling in the street. There

was oblique fracture of the left tibia a little above the ankle-joint, and the fibula was broken somewhat higher. The integuments were not lacerated, but they were put upon the stretch. The patient was collector to a brewery, had apparently lived freely, and was of a remarkably irritable temperament.

Leg placed in a junk—cold lotion—Liq. opii sedative. 5j. stat.

31st. *Vesp.* Got very little sleep last night. Is fidgetty and morbidly alive to what is going on around him—skin cool—pulse rather irregular, slow, full—tongue moist ; has been sick twice.

Beef-tea. Gin, 3j. in water. Liq. op. sed. ℥xxv. Sp. junip. c. 5iss. Mist. camph. 5xj M. h. s. s.

In the evening of the 1st January he was in much the same state, talked much about his family, and had been twice sick. The gin and draught were repeated. At one o'clock next morning he was suddenly seized with a paroxysm of such violent delirium, that it required several men to hold him down. He had not slept an instant since the preceding night ; before he could be secured he had nearly torn off the junk apparatus.

Liq. op. sedat. 5j. stat. Strait-waistcoat, &c.

He continued in a very restless state, talking incessantly till 4, a. m. after which he had some sleep at short intervals. During sleep the breathing was stertorous, as if he were under the influence of opium. The delirium, it should be stated, partly hinged on things present, and partly on things past.

10, a. m. *Liq. op. sed. ℥lx. Ammon. carb. gr. vj. Mist. camph. 5xij. M. 4tis horis. Gin, 5iss. in water.*

During the day he was quieter, and at night an andoyne and the gin were repeated.—During the third, he continued free from delirium, but his manner was still quick and his eye restless. The bowels not having been opened since the occurrence of the accident, he was ordered some aperient pills, with 4 ozs. of gin, and the night draught. He passed an unquiet night. Next morning his bowels were freely opened by a senna draught. At 11, a. m. he was in a state of

considerable excitement, and had torn off the junk apparatus.

Liq. op. sed. 3j. stat. Aug. dos. Liq. op. sed. in haust. quotidian, ad 3ss. Liq. op. sed. 3j. Sp. æth. sulph. c. 3j. c. Mist. camph. h. n.

The delirium continued during the evening, but during the greater part of the night he was under the influence of the opium. He slept much, only awaking at times, when he was very restless, though not so delirious as before. On the fifth he was quieter, though still inclined to delirium; the pulse was soft and slow, the tongue moist.

P. c. haust. 6tis horis, et adde Sp. ammon. arom. 3ss. Sing. haust. H. anod. h. n.

In the evening he was much more composed and rational. He had been sick two or three times during the day, the matters vomited being dark and acid—he perspired a good deal—tongue moist—pulse slow. He passed a pretty tranquil night, and on the 6th there was little hurriedness of manner. He had been very sick once or twice during the night.

Moschi optimi, gr. v. Ext. opii, gr. j. M. 6tis horis. Om. alia præter genevam.

He continued to be sick during the 6th, and in the evening the pulse was rather more frequent—tongue white in the centre—disposition to perspiration—bowels not opened since the 4th. An effervescing draught, with rhubarb and calcined magnesia, was ordered to be taken occasionally, and for a time it checked the sickness. On the 7th his manner was almost natural, and after this day he suffered no more from delirium. A mustard poultice was applied to the epigastrium, after every fit of vomiting. This however continued, and on the 8th and 9th was conjoined with looseness of the bowels approaching in character to dysentery, but without blood in the motions. There was some obscure tenderness in the belly. The quantity of gin was diminished to ʒiv. and the same quantity of red wine was exhibited.

12th. For the last three days there has been little alteration of the symptoms. The vomiting has continued more or less, ap-

pearing at times to be checked by a little burnt brandy, but continuing at others in spite of it. The mustard poultices have had little effect. He has occasionally purging, and frequently attempts to void a stool without effect; the motions are very watery and offensive. The tongue is disposed to be dry and red at the sides and tip; the pulse is more frequent, and there is still a slight febrile exacerbation in the evening. There is still the same obscure tenderness about the belly without tension. No delirium. It was supposed, from the character and continuance of these symptoms, that there was some inflammation of the mucous membrane of the bowels, and probably ulceration. The stimuli were now finally abandoned, and small doses of hyd. c. cret. with James's powder and hyoscinus were prescribed, a blister applied to the umbilicus, with subsequently some leeches to the hypogastrium, and small starch injections to check the tendency to diarrhœa. Arrow-root, sago and the most unirritating farinaceous food were ordered. We need scarcely pursue the details of the case, suffice it to say, that though the strength declined the symptoms never varied in character. The vomiting continued, with a disposition to purging,—there was a well marked febrile exacerbation in the evening, but up to the very moment of his death there was not even a tendency to delirium. At 11, a. m. of the 17th he died.

Sectio Cadaveris; 23 hor. post mortem. Body still corpulent, but wasted, when compared with the patient's state on admission.

Cranium. Dura mater very adherent to the calvarium—no perceptible morbid alteration of the membranes or structure of the brain. The latter firm, and containing very little fluid in its ventricles. Coats of the carotids exhibiting the opacities so common in advanced life.

Thorax. Lungs very healthy—heart large, flat, flabby. No material alteration of the great vessels.

Abdomen. No peritoneal inflammation. Liver inclining to the nutmeg character, without distinct granular deposit. Kidneys hard, not otherwise unhealthy—bladder so.

contracted as scarcely to hold half an oz. of urine. Stomach marbled at its cardiac end with large congested veins—no unusual vascularity of its mucous membrane, which was rather pulpy. Lower portion of the jejunum, and upper of the ileum of a deep and blood red dye in patches of from several inches to a foot in length; the vessels and capillaries being gorged and injected with blood. At intervals ulcers of small size not clustered together, chiefly disposed on the valvulæ conniventes, some with a raised and vascular margin, some without it, none displaying an attempt at cicatrization. In short, the mucous membrane in a state of inflammation, which has terminated in scattered ulcerations. Peritoneal coat perfectly healthy.

The leg was in surprisingly good position, when the restless state of the patient is considered. The process of union had made some progress.

The fate of this patient is certainly rather curious; he died of a "veritable gastro-enterite." The delirium entirely subsided under the treatment employed, and it would be difficult to pronounce upon the causes of the inflammation of the mucous membrane of the bowels. The quantity of stimuli was never excessive, scarcely a tithe of what has been exhibited with success in cases of this description. The utmost quantity of liq. op. sed. which was taken in 24 hours amounted to ʒiv. One circumstance is perhaps deserving of consideration. The patient having lived freely had of late suffered much from that malady which free living is so admirably calculated to produce—severe dyspepsia. For this he had liberally employed both physic and gin, and this condition of the intestinal tube might possibly have contributed to light up that inflammation and ulceration which occasioned his death.

V. INJURY OF THE SPINE—TEMPORARY PARALYSIS OF THE BLADDER, AND NUMBNESS IN ONE LIMB.

Rosa Albedine, æt. 19, was admitted at 2, a. m. of the 27th April last, under the care of Mr. Keate. She had jumped from a

second floor window, 30ft. from the ground, and she thought that she had fallen directly on her back.

There was not much general collapse. She could not move the right lower extremity to any extent, and complained of numbness in the right thigh and hip. She complained also of pain in the situation of the spinous processes of the lower dorsal and upper lumbar vertebræ, and though no fracture could be felt there, a slight projection of the last dorsal spines seemed present.

At 11, a. m. the numbness of the right thigh was rather increased, and she could bear to be forcibly pinched without experiencing inconvenience. There was much pain in the back, with incapability of turning in bed. The skin was warm and moist; pulse frequent, not hard; bowels not open. She could not pass her urine, and when drawn off by the catheter it was very dark, abundant, acid.

C. c. lumbis ad ʒx. II. sennæ. D feb.

The urine was drawn off again in the evening and had the same characters. On the 28th the numbness was rather increased and extended below the knee. She complained much of pain in the right iliac and costal regions, the bowels were not open, the urine required to be regularly drawn off:

Hirud. xiv., lat. dolenti. H. sennæ, ʒiiss., et rep. o. 2ndū hor. donec alv. respond.

On the 29th the pain was relieved, there was little pyrexia, the numbness was diminished, and she had once made water without the assistance of the catheter. Some saline draughts were given, and low diet continued. After this she progressively improved. The numbness of the thigh passed away, the power of motion of the limb returned, and the urine could be voluntarily passed. As the numbness of the thigh disappeared the patient began to suffer a good deal of pain in it, and a blister was ordered on the 6th May. To the application of this she refused to submit, and left the hospital, since which we have heard nothing more about her.

VI. ABSCESS, APPARENTLY IN THE LIVER
—PUNCTURE WITH A TROCAR—ULCER-
ATION AND SLOUGHING AROUND THE
PUNCTURE—DEATH—DISSECTION.

William Hollock, æt. 31, formerly a sea-
man, was admitted Dec. 23, 1830, under
Dr. Seymour, from whom he was shortly
afterwards transferred to Mr. Hawkins.

In the right hypochondrium, beneath the
cartilages of the 6th, 7th, and 8th, ribs, a
tumour of small size, fluctuating obscurely,
apparently depending on abscess in the
substance of the liver, which is felt in the
epigastrium. Pain on pressure of the tu-
mour or integuments in the neighbourhood
—some erythematous redness of the skin
—complains of pain in the tumour and in
the right shoulder. Countenance sallow,
anxious—cough—some emaciation—dispo-
sition to perspiration at nights.

Three years ago, whilst in the Navy, he
had severe liver-complaint in Bengal, for
which he was salivated. He recovered,
came home, and turned plasterer, which he
has since been. Present complaint com-
menced seven weeks ago with acute pain
in the right hypochondrium, cough, and fe-
ver. He has been bled seven or eight times,
blistered and salivated. Has observed the
tumefaction for about a month; has had no
shivering. A poultice and an anodyne
composed the treatment, till the 15th of
January, when the tumour had become
more prominent, and fluctuation, though
still obscure, was more distinct. A trocar
was introduced some two or three inches,
and from two to three ozs. of thick dirty-
looking pus were slowly drawn off through
the canula. A portion of gum catheter
was secured in the wound, and for a few
days the matter continued to drain out
through it. The catheter then slipped out,
and was never replaced. The patient suf-
fered little from the operation, but felt relief
from the discharge of pus. A little porter
and red wine were allowed, the matter con-
tinued to drain through the puncture, and
for a little while all went on well. On the
28th the matter appearing to be rather con-
fined, the opening of the abscess was en-
larged with a lancet. After that, there was
a disposition to bleed in the cyst, and on

pressing the parts around, on coughing, or
on deep inspiration, coagula were squeezed
out of the opening.

For some days he complained of severe
pain in the left elbow and fore-arm, and of
incapability of moving the thumb and fore-
finger. After a time, however, these symp-
toms subsided under the employment of
frictions with stimulating liniments. On
the 18th Feb. the margins of the opening
appeared disposed to ulcerate and looked
sloughy, with fungous granulations at its
mouth. There was some fulness in epigas-
trio near the wound, with redness and
thinning of the integuments. He had little
cough and no purulent expectoration; he
could not sleep at nights. He was ordered
laudanum, but it disagreed with him, and
the 4th of a grain of acetate of morphia
was substituted for it with good effect. On
the 22d the puffy fulness in the epigastrium
having increased, a puncture was made,
and a little curdly pus and more blood dis-
charged. After this, he improved for a time
and gained strength and flesh. The dis-
charge from the openings, though still
bloody, diminished, the tumefaction around
decreased, and the openings themselves
shewed a disposition to contract. On the
13th March the wounds were nearly closed,
but a thin bloody discharge still issued from
the original one. He complained much of
flatulence, some hiccup, and pain in the
situation of the diaphragm on taking a deep
inspiration. On the 15th one-third of a
grain of morphia was given every night.
The wound now began to ulcerate, and a
sore with a foul sloughy surface resulted.
The sore partly sloughed and partly ulcer-
ated, and dirty-looking slimy coagula were
in its centre. The integuments around were
blueish, with induration and tenderness.
There was not much constitutional disturb-
ance, but great irritability. In fact the pa-
tient had always been remarkably fretful
and irritable.

*Cataplasma, dauci. Haust. liq. ammon.
acet. c. Morph. acet. gr. 1-3d. Ammon. carb.
gr. vi., 6tis, horis.*

For a day or two the sore improved in
appearance, but then it degenerated again
into the foul sloughy ulceration. Several

applications were tried without effect, and gin and wine were freely given. The quantity of morphia was gradually increased until it amounted to one grain every six hours. By this dose he was fairly brought under the influence of the preparation, yet still the sore gained in size, and on the 12th of May was 4 or 5 inches in length, in a direction *across* the belly, and 3 or 4 in breadth from above downwards. The sore was superficial, affecting chiefly the cutaneous and subcutaneous tissues; its characters we have described before; in its shape it shewed a disposition to circularity, like the true hospital ulcer. The undiluted nitric acid was tried, but it gave great pain, and on the separation of the slough the sore had spread. The weak nitric acid lotion, laudanum, chloride of soda, in short a variety of applications were tried, but though some occasioned less pain than others none checked the progress of the sore. It spread with a widely diffused blue induration of the circumjacent skin; at its border was a thin margin of granulation, situate in the cutis itself, for the subcutaneous cellular membrane and the fascia sloughed without an attempt at reparation. The surface of the sore was one slimy dirty yellow slough, its circumference a broad halo of dark inflammation. The pain and tenderness were chiefly in the inflamed integuments around. The constitutional symptoms were those of low irritation; a pulse scarcely to be felt; a skin bedewed with a clammy moisture; a white tongue; and a sunken countenance. Before the patient's death this peculiar and frightful looking sore had spread over the belly beyond the umbilicus, and on the other side beyond a perpendicular line drawn from the anterior spine of the ilium upwards to the ribs. He died exhausted, not by the discharge, for that was not profuse, but by the irritation. Before death he vomited good bile, and his stools were of good colour. He had no symptoms of disturbance of the lungs, few of disturbance of the cerebrum. He expired on the 12th of June.

Sectio Cadaveris. June 14th. Body a good deal emaciated.

Cranium. Not examined.

Thorax. Lungs generally sound. Some adhesions of lung to diaphragm on right side, with a very slight quantity of serum in the chest. Lungs healthy. Heart and great vessels healthy.

Abdomen. Liver united by old adhesions to the abdominal parietes, for some space opposite the sore. Through the opening formerly made by the trocar, now closed by soft slough, a probe passed down to the cavity of an abscess somewhat larger in circumference than a walnut, but not so deep. This abscess did not appear to be in the liver, but rather on its surface. There was indeed opposite the puncture a yellow discoloration, as of cicatrix and obliteration of natural structure by lymph, penetrating the liver for about an inch. This probably had been the spot where the trocar had entered the substance of the liver. Liver around perfectly healthy. Abdominal viscera sound.

The abscess had probably not been in the substance of the liver, but on its surface. The liver might have been inflamed in India, but of an Indian hepatitis it bore no mark. From what appeared on the dissection it is more reasonable to conclude that the peritoneal surface of the liver had been inflamed, that suppuration had followed, that the matter had been confined by adhesions around it, and that a circumscribed abscess had resulted, than that one had been formed in the substance of the liver, which was otherwise healthy, and left no trace behind it. To this explanation Mr. Hawkins yielded his assent. We presume that none will doubt the propriety of Mr. Hawkins' practice. He did all that a surgeon could do under existing circumstances; and with all the knowledge acquired by dissection we do not know that he could have done more, and we scarcely see how he could have done less. Perhaps it might have been better if no foreign body had been left in the wound, but on this point different persons may form different opinions.

The nature of the sore which followed the puncture was peculiar; its causes are involved in difficulty. In its characters and progress it certainly approached to those of the hospital sore, the "pourriture d'hôpital," which was often wit-

nessed at the Hôtel Dieu, and more lately seen in the military wards at Bilboa. It was not so rapid in its progress, neither were there any other sores of a similar description in the house, and therefore we must refer it to some peculiarity in the habit or in the part, in other words, we must confess that we know nothing at all about it.

LXVII.

PATHOLOGICAL WALTZ.

DR. CORRIGAN, Dr. Hope, and many others will be delighted to learn that Dr. David Badham has set to music, the discordant sounds of a diseased heart, and has thus drawn harmony out of hypertrophy, with more than Paganini's skill. The bars, crotchets, quavers, and demiquavers are tunelessly arranged in the pages of an esteemed contemporary, and form one of the greatest curiosities in morbid anatomy which we have ever witnessed. The case was that of a young woman who was treated in the wards of the Royal Infirmary of Glasgow, for pleurisy, and was "completely recovered," and about to be discharged, when it was discovered that her recovery was very far indeed from being so complete. Her respiration was never perfectly easy, and she was put out of breath by the slightest exertion. Her pulse was very uncertain as to frequency, varying from 45 to 115 in the minute.—But the following very curious results of various examinations gave origin to the musical, and we would say, very fanciful illustration, to which we have just adverted.

"1. Pulsation of the heart heard over the whole chest, or nearly so.

2. The heart's impulse on the right side exaggerated, but slightly; neither the first nor second sound, however, so clear as on the opposite side, where,

3. The former is far louder than natural, but the shock less than over the right cardiac region.

4. The first sound concomitant with the heart's impulse is preternaturally loud on both sides, more particularly on the left, where it resembles the sound commonly produced by the auricles.

5. The rhythm of the heart has been for the last week or ten days altogether extraordinary, and to this fact my attention has been particularly drawn; the first sound, with its concomitant impulse, having been as usual followed immediately by a second; this was in its turn as immediately succeeded by a third, or, to speak more correctly, by a reduplication of the second. These three sounds together form an exact *waltz* measure, after which comes a pause of much longer than natural persistence. On some occasions the auricle (to which I have little hesitation in referring the second sound of the heart, although at variance, perhaps, with the prevailing opinion) has contracted not only twice, but sometimes thrice, or even four times, for each pulsation of the ventricle; and what is very remarkable, since contractions of the auricles are seldom communicated to the sense of touch, distinct beats exactly synchronous with these sounds are to be ascertained, whatever number of times the sounds are repeated. In short, if the ventricles in this case occupied the same time in contracting as they do in health, and the pause were of natural persistence, the rhythm of the heart might be represented in musical notation as follows:—

[Here follows the music, which we had not time to represent by wood-cuts, and therefore the reader must take the verbal description.]

"The first bar represents the natural rhythm, in which the ventricle occupies half of the time, the auricle quarter of the time, and the pause the remaining quarter."

The irregularity in question did not escape the observation of Laennec.

"It sometimes (says Laennec) though very rarely, happens during palpitation, that each contraction of the ventricle is followed by several successive contractions of the auricles, so quick as only to equal, in point of time, one ordinary contraction. In this sort of palpitation, I have sometimes reckoned two pulsations of the auricles for one of the ventricles—sometimes four, but more commonly three."

In addition to the above phenomena, the patient of Dr. B. presents a widely diffused

"bruit de soufflet" down the course of the aorta, and throughout its extent. Dr. B.'s diagnosis is, "dilatation with slight hypertrophy of the right, and extensive passive aneurism on the left side of the heart."

LXVIII.

DR. WEATHERILL'S SUCCESSFUL CASE OF EXCISION OF THE CERVIX UTERI.

In the ninth volume of this series (No. XVIII, p. 518.) our readers will find an abbreviated account of a *successful* case of amputation of the cervix uteri, performed by Dr. Weatherill, of Liverpool, and published in a contemporary journal, about the middle of the year 1828. In that case, it is said that the cavity of the abdomen was laid open, and that the intestines rushed out; but that nevertheless, the woman perfectly recovered, and went to America cured. We made some severe animadversions on this case at the time; but as the patient had gone beyond the Western wave, we never expected to hear any thing more of her.—The re-publication of this journal in America has been the means of exciting the attention of our transatlantic brethren to the case in question, and it was only a few days ago, that we received a letter from Dr. Charles Hildreth, of Boston, Massachusetts, from which we make the following extract, for the benefit of Dr. Weatherill and those who place implicit credence in the *successful cures* performed by desperate operations in this and other countries.

TO DR. JAMES JOHNSON.

"Sir,—You are so well and so honourably known to the medical profession throughout the United States, that I feel myself, as it were, acquainted with you personally, and therefore I hesitate not to address you on the present occasion.

In the Medico-Chirurgical Review, for October 1828, page 518, you have noticed the case of "Successful Excision of the Cervix and Os Uteri," by Dr. Weatherill, of Liverpool. The patient therein mentioned died

under my care, while physician to the Boston Infirmary, and of the disease for which she was operated on, not quite ten months previously by Dr. W. Particular circumstances prevented me from examining the body after death; but the poor woman experienced the most dreadful tortures, for which she was obliged to take enormous quantities of laudanum. The patient's name was Charlotte Lewin, aged 37, and recently arrived from Liverpool. Her narrative corresponded with Dr. W.'s account of the operation, but had any other than an Englishman stated the particulars of such a horrid procedure, we would not have believed it on this side of the Atlantic. The husband of this unfortunate female asserted that the bladder was wounded in the operation, and that the urine was never afterwards retained. For the truth of this, however, I cannot vouch, with certainty, as the body was not examined after death.

With sentiments of very high respect,

I am, Sir,

Your most obedient servant,

CHARLES F. HILDRETH, M. D."

Boston, Massachusetts,

April 9th, 1831.

We do not feel inclined to make any new comments on Dr. Weatherill's operation. If the grave could give up faithful records of the dead, many similar *confirmations of successful operations* would, no doubt, be brought to light! The want of such records has probably done more to disturb the progress of medical and surgical knowledge, and to injure society at large, than many grievances more loudly complained of.

LXIX.

BYE-LAWS OF THE ROYAL COLLEGE OF SURGEONS IN LONDON.

No business whatever shall be transacted nor any matter be discussed or debated at any meeting or assemblage convened by or under the authority of the President or Council, or before or after the business thereof shall have commenced, other than the particular business or matter in respect of which such meeting or assemblage shall have

been convened; nor shall any debate or discussion whatsoever be had or allowed at any meeting convened by the President or Council for the delivery of Lectures or Orations either before or after the same shall have commenced or terminated. And no meeting or assemblage of Members of the College shall be held in the Hall or Council House of the College, or in any of its appurtenances, unless convened by or under the authority of the President or Council: and no Member of the College shall advertise or convene or attend, or combine with others to advertise or convene or attend any meeting or assemblage in the Hall or Council House of the College, or in any of its appurtenances, not authorized by the President or Council. And any Member of the College who may in any manner offend herein shall be liable to be restrained and excluded by the Council from attending any Orations and Lectures at the Theatre, and from any use or admission to the Library and Museum, and to be suspended from any or all other Privileges which he may have as a Member of the College, for any such period as the Council may adjudge, or to removal by the Council from being a Member of the College. And every Member of the College who shall thereupon be removed as aforesaid shall forfeit all his rights and privileges as a Member thereof.

All meetings convened by or under the authority of the President or Council of the College, as well for general business as for the delivery of Orations or Lectures, or for the distribution of Prizes, shall be under the control and direction of the President or other Member of the Council presiding at such Meeting. Any Member of the College who shall interrupt, impede or interfere with the proceedings at any such Meeting, or shall propose any matter for discussion or debate without the leave of the President or other Person so presiding, shall, upon being required by the President or other Person so presiding, immediately withdraw from such Meeting; and shall be moreover liable to be restrained and excluded by the Council from attending any Orations and Lectures at the Theatre, and from any use of or ad-

mission to the Library and Museum, and to be suspended from any or all other privileges which he may have as a Member of the College, for any such period as the Council may adjudge. And any Member of the College who shall so offend a second time, or during any suspension by the Council shall attempt to exercise any of the privileges from which he shall be suspended, shall be liable to removal, by the Council from being a Member of the College. And every Member of the College who shall thereupon be removed as aforesaid, shall forfeit all his rights and privileges as a Member thereof.

Made and Ordained Bye-Laws of the
ROYAL COLLEGE OF SURGEONS IN LONDON
by and at a Meeting of the Council of the
said ROYAL COLLEGE, holden, at the College,
on the 27th day of April, 1831.

*We have examined and do approve of and
allow these Bye-Laws:—*

BROUGHAM, C.
TENTERDEN,
N. C. TINDAL.

21st day of May, 1831.

LXX.

CHOLERA MORBUS.

THE mystery which hangs over the nature, the cause, and we may add, the treatment, of this terrible scourge, leaves us little more than mere conjecture as to the course which it may ultimately pursue. We greatly doubt whether that which is denominated cholera in Russia and Poland be the same disease which ravaged our Indian possessions for many years past. It is probably nothing more than some anomalous epidemic which springs up, from time to time, without any evident cause, and always in a new shape, puzzling and frightening the inhabitants of those countries which it happens to visit. As to its being contagious, at least in its origin, we do not believe it; though it probably takes on a contagious

character under peculiar circumstances, the same as all other fevers do. The quarantine precautions adopted here, may be necessary to lull apprehensions and ungrounded fears; but we have no idea that it will ever reach these shores, in an aggravated form.

At the same time, we must confess that we have no positive data to support this opinion. It is merely a conjecture. We do not think that cholera will be kept out of England by quarantines. If it be the true Indian disease, it will easily overleap such barriers, and will travel, as it has hitherto done, in the same tract, from East to West, verging to the North, in which ancient learning, civilization, and power, have marched before it. Our own conviction is, that the causes of cholera, as well as of many other diseases, spring from the earth on which we tread, however they may be wafted about afterwards by the atmosphere which we breathe. There may—there must be, great operations going on beneath the surface of the soil, of which we have no cognizance, but by their effects. The causes of the earthquake and the volcano give no warning of their work, till the ground trembles under our feet, or the flame bursts forth from the mountain. What knowledge have we of the processes by which our hot and medicinal waters are manufactured in the bowels of the Earth? That mother which gave us birth—which furnished us with a candle, and will supply us with a grave—pours forth from her womb many of the sources of our maladies as well as the medicaments by which some of them are cured. But if, as we hope and believe, the Indian and the continental cholera will not visit our shores, *in propria persona*, we shall be very much surprised indeed, if certain *types* of the malady do not appear, in the course of the next year, in that crowded part of the metropolis, denominated PATER-NOSTER ROW. These *forms* of cholera we hope to have opportunities of treating—and whether we kill or cure, the results shall not be withheld from our readers.

The following particulars have appeared since the above was written.

“THE CHOLERA MORBUS.—The following is the copy of an official document received from Riga on Saturday, respecting the prevalence of the cholera morbus in that port, issued by the Medical Board there:—

‘Riga, May 14 (26).

‘Agreeably to the orders of the high authorities of the Livonian Medical Board, it is made known to the Riga inhabitants, that after the appearance of a few sudden deaths and suspicious sickness had drawn the attention of the Medical Board, it now appears, beyond doubt, that the illness which has appeared in the city is the cholera morbus. By the most particular inquiries, it does not appear that this disease has been introduced from outwards into the city; and from the circumstances of the neighbouring Governments of Courland, and the borders of the Duna, to the Minsk Government, remaining in an healthy state, as likewise that those who were first attacked have not been strangers, but inhabitants, who lived in parts of the town distant from each other, and in the suburbs, would prove that the sickness has shewn itself in this place from unknown causes in the air and surface of the earth, more particularly as the breaking out of the disease was at the commencement of unusually hot and sultry weather; and further, the public is brought to the recollection, that the College of Physicians in Moscow, called together by order of his Imperial Majesty, loudly declared it to be their opinion, that the cholera could not be communicated from one person to another by goods or merchandise. Let not, therefore, the inhabitants of this town fear that the sickness is infectious; but rather let them, by an attention to their way of living, according to the regulations recommended, protect themselves against the disease, and in reliance on the forethought and precautions of the high authorities, to seek their comfort and consolation. The Livonian Medical Board will give the public constant accounts of the state of the disease.

‘Inspector D. DYRSSEN.’

‘CHOLERA MORBUS.—The Committee of Health at Warsaw has published a description of the indications of cholera morbus, and of the proper treatment of persons

attacked by it. The malady usually begins with vertigo, and with cramps in the limbs, so violent, that the individual falls to the ground, powerless and motionless. These symptoms are followed by excessive vomiting and dreadful pain. The patient, according to the experience here promulgated, ought to be entirely undressed, laid upon his back on a bed, and covered with a sheet. Hempseed, previously steeped in boiling water, should then be heaped upon him, outside the chest, from the neck to the feet, as hot as he can bear it. When this cataplasm begins to cool, it should be renewed three or four times, until the patient breaks out into a profuse perspiration. To increase this perspiration he should drink a sudorific pisan made of elder-flowers. If he complains of nausea, a spoonful of magnesia, or of olive oil, should be administered to him. When he has remained for a considerable time in this state, he should be wiped and dried, and his bed-linen changed; great care being taken that he does not become cold. He is then out of danger; and all that remains is to re-establish his strength.'

LXXI.

CURIOUS CASE OF RUPTURED KIDNEY.

A LABOURING man, 30 years of age, was knocked down by part of a brick wall falling on him, and being brought to the London Hospital, appeared to have received a slight contusion on the loins. He was kept in bed, purged, and appeared to be doing very well, complaining only of weakness of the back, when, on the tenth day after the accident, he suddenly complained of severe pain in the loins. The abdomen soon afterwards became distended, great depression of the system took place, he rapidly sank, and at 3 o'clock in the afternoon he died.

On opening the abdomen there was observed behind the peritoneum a large tumour, which had pushed the viscera before it. When cut into, it appeared to consist of an enormous mass of coagulated blood, in the centre of which was the right kidney, ruptured transversely in two. The renal

vessels were examined, but no trace of disease could be found, with the exception of slightly increased vascularity in a part of the lining membrane of the renal vein. The left kidney was soft, as were the two portions of the right, but they were not otherwise unhealthy.

We suppose that the kidney must have been ruptured at the time of the accident, but it is equally curious that the patient should live so long, and that he should die suddenly at last. We have heard of a case of ruptured spleen from accident, in which the patient did very well for a few days, and then died somewhat suddenly, apparently from fresh hæmorrhage. We have seen a boy live fifteen days after rupture of the liver, but then he died gradually from peritonitis occasioned by the effusion of blood and of bile into the peritoneal cavity. We regret that in the case of ruptured kidney no mention is made of the state of the urine. We never saw a case where the kidney was severely injured, in which the urine was not bloody.

LXXII.

MR. DUFFIN'S NEW SHIELD PESSARY.

MR. DUFFIN has invented a pessary, which he thinks superior to those in common use. It is a modification of the stalk pessary, and by means of a graduating screw, the length of the stalk can be accommodated to that of the vagina as the cure advances. The head, which is hollowed at its summit into a cup, being of a size adapted to that of the vagina in the particular case, and hollowed in proportion to the magnitude of the parts it has to receive, affords support without irritation or injury. The head may be made to unscrew, so that as the vagina contracts a smaller one may be substituted for it. The shield being pressed externally against the perinæum and perinæal part of the labia, and retained firmly in that situation by a thick T bandage of cotton, to which it may be attached, supports steadily through the medium of the head and stalk the weight of the prolapsed organ, and obviates all vacil-

lation of the extremity of the stalk. Between the shield and stalk is a ball and socket-joint, allowing the instrument to accommodate itself to every change of posture, preventing any jarring impulse or undue friction. The pessary being hollow, and open at the extremity of the stalk, the shield also being perforated in this situation, whilst the head of the instrument also being perforated in numerous places, any astrigent or other lotion can be thrown in by means of a syringe or India-rubber bottle. The instrument has received the approbation of Drs. Charles Clarke, Blundell, Henry Davies, and Robert Lee. The pessary is best made of ivory, but for economy the head and shield may be constructed of box-wood, the stem and joint of ivory. The instrument may be procured from Messrs. Stoddart, No. 401, Strand. A wood-cut representing it is to be seen in the Medical Gazette for March 26th, 1831.

LXXIII.

CURIOUS EFFECTS OF ROMAN AIR.

ALTHOUGH the rage for Italian residence and Italian air is probably much on the decline, yet the attractions of that classic soil are such that many people make HEALTH the excuse for visiting that fairy land. If these should suffer for their curiosity, no very great share of pity can be extended to them. But there is a large class of REAL INVALIDS who consult their medical attendants on the propriety of trying the air of Italy for relief of their sufferings, and their medical advisers are often placed in awkward positions on these occasions. If they dissuade their patients from the trial, they are sometimes suspected of self-interest—if they advise them to proceed, they may be adding to the evil already incurred. The safe course for the medical practitioner is to advert to the sentiments of those who have investigated the subject personally. There is much to be gained from the experience of invalids themselves; and a selection from their observations alone, would be a very useful little volume for those medical practitioners in

this country, who are unable to speak from personal experience. Matthews, in his *Diary of an Invalid*, has made many shrewd remarks on this subject, and so has the late Mr. Hope, in the novel of *Anastasis*. But we cannot pursue this subject further on the present occasion. Of the medical authorities respecting the climate of Italy, Dr. Clark holds, of course, a distinguished place, and he is an excellent authority to refer to, on most occasions. The second edition of his work is evidently less favourable to an Italian climate than the first—no doubt, from more matured experience and multiplied observation. The following quotation from a recent tour through Italy may not be uninteresting at this season, when invalids are pluming their wings for a flight to southern regions.

NERVOUS DISORDERS—ROMAN SENSIBILITY.

"Under this vague term (nervous disorders) a host of dissimilar and really different maladies is comprehended. There is no doubt that a *journey* to Rome would generally be beneficial to people affected with nervous complaints; but it is very questionable if a residence there would be productive of substantial good. It is a remarkable fact that the inhabitants of the Eternal City are characterized by a peculiar sensibility of the nervous system—evinced by a disposition to convulsive affections, from causes quite inadequate to the production of such phenomena in other people and in other countries. The inordinate sensitiveness of the Roman ladies to perfumes is well known, and might be almost taken for freaks of the fancy, were it not so well authenticated. It is a susceptibility, too, of recent origin. The Roman matrons of old were fond of perfumes—those of the present day often faint, or go into convulsions, on perceiving the odour of the most pleasant flower. And not females only, but effeminate males evince the same morbid sensibility to odoriferous emanations.* The causes of this phenom-

* "Dr. Mattæi (whom I had the pleasure of knowing in Rome) states, in his clinic-

non have given rise to diversity of opinion The Roman physician (Mattæi) attributes it to 'the daily increasing mobility of the nervous system, produced by the luxurious and listless life of the Roman people.'† But Dr. Clark, while he admits that such a life may have tended to originate this morbid sensibility, and that when once acquired, it may be transmitted from parent to progeny—believes that '*the climate of Rome has some specific effect in inducing this state of the nervous system.*' I have no doubt of it. And my only wonder is, that Dr. Clark, during ten year's residence there, did not find out what this something is. He says, in the same page:—'Even a temporary residence of some duration at Rome, produces a degree of the same morbid sensibility, and, in cases where the Roman mode of living cannot be adduced as the cause.' I think I hear the reader ask, what is this cause, then, which has so much puzzled the doctors? If compelled to answer, I would say that it is the habitation to the STINK of the Roman streets, which perverts the sensibilities of the olfactory nerves—renders them unaccustomed to decent smells—and throws them into convulsions on contact with a perfume. I accord entirely with Mr. Matthews, in the opinion that the former MISTRESS of the WORLD is now the dirtiest city in Europe—with the exception of Lisbon. This solution explains another part of the phenomenon which puzzles Dr. Clark. 'It is to be remarked, (says he) that it is not *disagreeable odours* which produce such effects on the nervous system, but the more *delicate*, and, to northern nations, *agreeable odours* of flowers and other perfumes.' No doubt of it. If mal-odorous exhalations had been capable of inducing

convulsions, Rome would, long since, have cured the evil effectually, by removing from the presence of her insulted ruins, the cause of it—MAN !" ‡

"But there is another and a much more formidable malady, or rather class of maladies, to which the Romans are peculiarly prone—namely, *sudden death*,—or as it is coolly called, ACCIDENTE—which is sometimes EPIDEMIC in Rome.§ Whether this terrific agent of the Grim Tyrant acts through the medium of apoplexy or diseases of the heart, the Roman physicians have not ascertained—but one thing is clear, that the climate of the Eternal City is extremely hostile to the brain and nervous system—and consequently all who have any tendency to fulness about the head should be shy of residence there. Dr. Clark observes that —'head-achs are common at Rome, and, among strangers, he has found them of very frequent occurrence.' The same author, however, informs us that *bronchial affections* (chronic inflammation of the mucous membrane of the air-tubes) are generally benefitted by a Winter's residence in Rome—as also chronic rheumatism. But the passage which I have already quoted some pages back, from Dr. Clark, respecting the frequency and severity of inflammatory affections of the chest, during Winter and Spring, in Rome, casts strong doubts on this utility of the climate in CHRONIC BRONCHITIS.—That the Italian winds, like the satyr's breath, blow hot and cold, almost at the

‡ What says the eloquent author of ANASTASIUS?

"These people (the modern Romans) cannot prevent the sun of their fine climate from shining at its stated hours; but they make their streets impervious to its cheerful light. They cannot prohibit the rich vegetation of their fertile soil from diffusing its fragrance; but they collect every villainous odour to subdue Nature's sweets. *Even amid their orange-groves, loss of scent would be gain.*"

§ "Subitanea scilicet mors, vulgo ACCIDENTE, quæ a diversis causis ortum ducens, modo sporadica, modo quasi epidemica obrepit." —Mattæi.

al work, as follows:—'Nostra vero ætate nervosæ affectiones, vulgo *tirature*, seu convulsiones *communissimæ* sunt, feminis prosertim, *effeminatisque viris*, quorum corpora a tam levibus causis commoveri solent, ut odorum licet gratissimorum vis ea facile perturbet ac male afficiet.'"

† "A molli inertique vita in Romanis incolis."

same moment, I am ready to grant ; but, in strictly medical sense, I leave my talented friend to explain how a climate, in which 'acute inflammation of the lungs appeared more violent and more rapid in its course than in England,' can possess the singular and felicitous property of relieving already existing inflammation of the tubes leading to the same organ. I bow to his authority, as to the *fact*—I only state the difficulty of the *explanation*. But I shall conclude the subject of apoplexy and nervous affections, with the following short and apposite sentence from the same author.

'For persons disposed to apoplexy or nervous diseases, Rome, of course, would not be selected as a residence—nor is it proper for persons disposed to *hæmorrhagic* diseases—or for those who have suffered from intermittent fevers.'

I need hardly say that hæmorrhage, or bleeding from the lungs, is one of the most common precursors, causes, and accompaniments of pulmonary consumption ;—and this fact, taken in conjunction with all that has been offered respecting the climate of Rome—one of the most favourable of the Italian climates for consumption—ought to inspire serious doubts as to the propriety of directing phthisical invalids to the Eternal City—unless it be for the purpose of enjoying eternal repose near the pyramid of CAIUS CESTIUS.*—*Johnson on Change of Air*.

LXXIV.

PHTHISIS CURED BY LIVING ON RAW TURTLE.

DR. HAMILTON, in his recent and elegantly-written History of Medicine, relates the following case as having come within his own observation in the West Indies.

* "The English burial ground—where a fosse or ditch, instead of a wall, surrounds and protects those 'frail memorials' of our departed countrymen, which—

"Implore the passing tribute of a sigh."

from every one who has a spark of feeling in the heart."—*See View from the Tower of the Capitol*, p. 160. [Am. Edition, p. 178.]

"However the art of the cook may have succeeded in corrupting the natural qualities of the flesh of the turtle, by the addition of powerful condiments and inflammatory sauces, so as to bring upon it an unmerited stigma ; in its unsophisticated state, it is perhaps one of the most nutritious, salutary, and restorative, articles of diet in existence. It was most satisfactorily proved in a case which fell but a few years since under the observation of the writer of this volume, and can nowhere find a place more appropriate for its introduction than the present. A gentleman, resident in one of our oldest and most frequented islands in the West Indies, having, from a long continued course of free living and late hours, contracted a complaint, to all appearance confirmed phthisis, accompanied with excessive emaciation, debility, teasing hectic cough, and all the other ordinary symptoms—when wasted to but a shadow of his former self, was advised, as a last, though almost hopeless, resource, to try change of air, and endeavour to glean health from the sanative breezes of the uninhabited island of Testigos, on the coast of the Spanish main. This is a low sandy island, destitute of human habitations, and only resorted to at particular seasons by fishermen, who come in quest of the turtle, which frequent its shores, unintimidated by the sight of man. Testigos could thus boast no vintners' cellars or luxurious taverns, to debauch the appetite and sap the constitution—no social parties to tempt to indulgence—no boon companions to betray into intemperance : nature alone presided within its solitary bounds, and compelled obedience, however reluctant, to her salutary laws. So deplorable was the condition of the invalid, and so utterly hopeless appeared to be his chance of recovery, that, on embarking for that island, which he hardly expected to reach alive, he carried a supply of planks and tools along with him, for the double purpose of constructing a hut to shelter him in life, and afterwards form a coffin to receive him in death. Arrived at Testigos, he led from necessity a life of primæval regularity and simplicity, rising with the orb of day, and court- ing the balmy influence of sleep, as soon as

the shades of evening fell—his food was the turtle's flesh, uncontaminated by the arts of the cook, which tempt the palate but undermine the health—his drink the simple element, uninfamed by the admixture of deceitful wine or inebriating spirit. After thus living in patriarchal simplicity for some few months, he returned to his astonished friends, so altered in appearance, and so renovated in health, that even those who had been most intimate with him hardly knew him upon his arrival, and could with difficulty be persuaded that the robust and ruddy-complexioned being before them, was the same who had so recently parted from them a living skeleton—a wasted form." *V. l. p. 350.*

With all due deference for the learned author of the work above-mentioned and of the case just quoted, we suspect that the old West Indian laboured under a disease very different from phthisis. That the primæval simplicity of regimen pursued on the island of Testigos effected a cure in the case in question, we do not doubt; but we think the disease was seated in organs below the diaphragm.

LXXV.

CHOLERA MORBUS.

57, Old Steyne, Brighton.

My dear Sir,

As cholera excites so much attention at present, you may, perhaps, find something in the following notes which may deserve a corner in your useful Journal. On a subject so obscure, one ought to gather *facts* in every direction, and then set to analyzing them. Believe me, my dear Sir,

Yours very truly,

J. T. TODD, M.D.

REMARKS ON CHOLERA MORBUS. Extracted from a Letter of Mr. R. HERRMANN, of Moscow.

1. The fluids voided by stool and vomiting contained, besides water, some acetic acid, a small quantity of osmazome, salivary matter, butyric acid and mucus. They resemble very much gastric juice, but do not contain any free muriatic acid. In the alvine discharges, the quantity of butyric acid is greater than in the fluid voided by vomiting, and they contain, besides some albumen,

a fetid, oily matter, and a small admixture of bile.

2. The bile of the cholera patients contains the same ingredients as that of healthy persons; it is, however, more concentrated.

3. The secretion of urine ceases almost entirely during the disease. The urine which first re-appears, when the disease has been overcome, contains less urea, and less of the other solid ingredients, than the urine of healthy persons.

4. The blood undergoes considerable changes during the cholera. According to Mr. Herrmann, the blood of healthy persons contains carbonic and acetic acids, in a free state. The blood of the cholera patients contains much less acetic acid, and the quantity of the crassamentum, relative to the serum, is much greater than in healthy persons; and the increased relative quantity of the crassamentum was found to be in direct proportion to the aggravated nature of the disease.

The blood taken from a patient 2 hours before his death contained 62.5 per cent. crassamentum, and 37.5 per cent. serum of sp. gr. 1.036 re-acting alkaline upon litmus papers. The blood of a healthy person, treated in the same manner, gave 43 per cent. crassamentum, and 57 per cent. serum, of specif. gr. 1.027, re-acting acid on test papers.

Mr. H. concludes, from his experiments, that the change of the composition of the blood is effected by a part of its ingredients being abstracted by the discharges by stool and vomiting, and that the blood, by parting with its acetic acid and a part of its watery particles, acquires that greater consistency, and that tendency of separating its fibrine, which is observed during the disease.

Dr. Taenichen, in his numerous dissections, found invariably fibrine separated in the heart, forming polypous masses, partly obstructing the arteries.

5. Mr. H. found the air, immediately surrounding the patient, to contain a substance, which, when deposited upon cooled surfaces, resembled animal mucus. It did not re-act upon test-papers, and was precipitated by sugar of lead and tincture of galls, bearing great analogy to the substance which Mos-

cati separated from infected air.

Mr. H. is of opinion that, at a certain stage of the cholera, a miasm is developed, and that, under a certain predisposition of the constitution, the breathing of air containing the infectious matter communicates the disease. It appears, that, in Moscow, three individuals amongst 100 possessed this susceptibility for the disease. The proximate causes of the symptoms appear to consist in too copious secretion of the gastric juice, in a spasmodic obstruction of the absorbents of the digestive canal and the biliary ducts, and in a degeneration of the blood, which, when arrived to a certain height, terminates the life of the patient by impeding circulation. The exciting of copious diaphoresis is the only efficacious remedy against cholera, and no patient recovered in Moscow without this critical secretion.

We are much obliged to Dr. Todd for the foregoing extract ; for although we do not attach much importance, in general, to the chemical analysis of fluids, in so acute and rapidly fatal a disease as cholera, yet every positive fact is useful as a datum for future theories. We perceive that the College of Physicians has decided on the *extreme* contagious character of cholera, and has recommended quarantine regulations, as strict as if the *PLAGUE* were the disease in question. These regulations are on the safe side. They will not invite the disease into this country—nor do we think they will prevent its advent, if we have any clear idea of its nature. TIME will tell. We need scarcely allude to the inane, or rather insane, speculations of Sir Anthony Carlisle. A more direct puff was never sent forth from Warrens manufactory or Ely Place ! It is contemptible in the highest degree.

LXXVI.

MR. ABERNETHY.

SINCE the last number of this Journal was published, that strange compound of talent and eccentricity, of enlightened observation and hobby-horsical empiricism, of goodness of heart and rudeness of manner, of amiable feeling and irritable temper, has paid the debt of Nature. It is greatly to be doubted whether his eccentricity and roughness of

manner were not assumed at first, for some whim or humour, and continued afterwards, from inclination—habit—or perhaps DESIGN. This last expression will sound strange in the ears of those who believed, or rather were convinced that the late Mr. Abernethy lost many thousands annually by his MANNER of treating patients. We never participated in this opinion, nor do we believe that the individual himself did so. We firmly believe that this same rudeness drew more visitors from curiosity than it deterred by fear of insult. Let it be remembered that it caused the man to be talked of everywhere—and this very circumstance, leaving all ability out of the question, was sufficient to make his fortune. This may be illustrated by one or two very familiar examples. Dr. Eady merely writes his *name* on the walls—and yet we may be assured that he finds his account in it, or he would not take even that trouble. So with Warren's "BLACKING," and Hunt's "MATCHLESS COMPOSITION." The very sight of a name or a thing generates, by constant iteration, a species of fame or celebrity. But with a man like Mr. Abernethy, who was attached to a great hospital, and who had really distinguished himself by theoretical and practical researches, publicity was every thing—and especially when that publicity was connected with eccentricity. Whatever an eccentric character says or does is considered clever, although the same sayings or doings would pass for nothing, or for dullness, if said or done by others. In respect to medical men, there is a universal propensity in the public mind to exaggerate the benefits received from them, whenever their names happen to become familiar with the public ear. The failures, nay, even the blunders, of such men are not merely soon forgotten, but they are seldom believed at all. The routine to which Mr. Abernethy gave way, for many years before his death, was generally ludicrous, but sometimes tragical. We have seen more than one instance where life was, in all human probability, sacrificed by an obstinate disregard of all examination of the case, and a blind perseverance in one system of treatment totally inapplicable to the existing disease. We believe, however, that when

Mr. A. could be brought to think and reason on a case, (which was a rare occurrence of late years,) his judgment was clear and his practice judicious. The eccentric sayings and doings of this talented individual would fill a volume, and some piquant specimens have been collected together in the second number of the Metropolitan Magazine for June last.

Though highly irritable in his temper, we believe Mr. A. was amiable, good-natured, and possessed of strong feelings. He was an honest as well as able surgeon, and in his eccentricities he never injured or attempted to injure, the character or interest of his professional neighbour.

Requiescat in pace!

BIBLIOGRAPHICAL RECORD.

First of April to 1st July, 1830.

1. An Appendix to the Popular Summary of Vaccination, comprising Experiments with Small-pox Virus upon the Cow, and further remarks on the Practice of Cow-pox. By JOHN MARSHALL, Esq. Octavo, sewed, pp. 38. Underwood, 1831.

2. Lecture introductory to a Course of Clinical Surgery, delivered to the Students of the Glasgow Royal Infirmary. By M. S. BUCHANAN, M.D. one of the Surgeons to the Royal Infirmary. Pp. 25; not published.

This lecture strongly insists on the importance of clinical instruction, and especially clinical Surgery. This conviction is now becoming universal.

3. A Supplement to the London, Edinburgh, and Dublin Pharmacopœias; containing a concise View of the Doctrine of Definite Proportions, and its Application to Pharmacy—an Account of the new French Medicines, &c. By D. SPILLAN, A. M. M.D. one of the Physicians to the Dublin General Dispensary. Octavo, pp. 218, 1830.

This little work is executed in a masterly manner.

4. A Translation of the Pharmacopœia of the Royal College of Physicians of London, 1824, with Notes and Illustrations. Second Edition. By RICHARD PHILLIPS, F.R.S. &c. Lecturer on Chemistry, &c. Svo. 1831.

5. A practical Dissertation on the Waters of Leamington Spa; including the History of the Springs, a new Analysis of their Gaseous Contents, the Rules for drinking the Waters, Bathing, &c. By CHARLES LONDON, M.D. Physician at Leamington. Third Edition, 1830. Octavo, 5s. 6d.

We have already, on a former occasion, expressed a very favourable opinion of this volume; and of a third edition, it is unnecessary to go farther than to announce it.

6. The Surgical Anatomy of some of the principal Vessels of the Head.

This is on a sheet, with marginal letter-press explanations. It is as large as life, beautifully coloured, and apparently executed (by Cocks) with great fidelity.

7. Lectiones Celsianæ et Gregorianæ; or Lessons in Celsus and Gregory, consisting of Passages from those Authors, syntactically arranged, with copious Observations, &c. for the use of Medical Students. By WILLIAM CROSS, Teacher of the Classics and Medical Latin. Small Svo. pp. 169. Wilson, 1831.

A very useful little vade mecum.

8. An Essay on the Influence of Temperament in Dyspepsia or Indigestion. By THOMAS MAYO, M.D. Octavo, pp. 144, 1831.

9. Introductory Lecture on Midwifery, delivered in February, 1831, at the School of Medicine in Liverpool. By SAMUEL MALINS, M.D. Underwoods, 1831.

10. Treatise on the Excision of Diseased Joints. By JAMES SYME, F.R.S.E. Surgeon of the Edinburgh Surgical Hospital, Lecturer on Surgery, &c. Octavo, pp. 163 with Plates, 7s. 6d. bds. 1831.

11. The Glasgow Medical Examiner, for April, 1831. Edited by S. P. GLEN, Esq. Surgeon. No. 1.; to be continued Monthly. Octavo, pp. 24.

☞ *One main object of the new periodical is to promote medical reform.*

12. Medical Zoology and Mineralogy; or Illustrations and Descriptions of Animals and Minerals employed in Medicine, &c. No. V. May 1, 1831. By JOHN STEPHENSON, M.D. Price 3s. 6d. each number.

☞ *This work is admirably executed, and deserves the patronage of all classes of the profession.*

13. View of the Pelvis, shewing the natural Size, Form, and Relations of the Bladder, Urethra, Rectum, Uterus, &c. in the Infant and in the Adult, taken from Preparations made for the Museum of the Royal College of Surgeons in Ireland. By JOHN HOUSTON, Curator of the Museum, &c.

☞ *These three plates are done on stone, and are very accurate representations of the parts above-mentioned. Mr. Houston we believe to be one of the best anatomists in these Isles.*

14. An Address delivered before the New York Horticultural Society, on the 8th September, 1829. By J. W. FRANCIS, M.D.

☞ *An eloquent and learned address in favour of horticulture—and, indeed, of agriculture.*

15. The Pharmacopœia Universalis; or complete Encyclopædia of the Materia Medica contained in the Pharmacopœias of London, Edinburgh, and Dublin, as well as of all those of Europe and America; and of the Dispensatories, Formularies, and Chemical Works of numerous Writers. Edited by JAMES RENNIE, A.M. Professor of Natural History, King's College, London.

☞ *This Work, which is published in half-crown parts, promises to afford, at a cheap rate, a mine of pharmaceutical, chemical, and botanical knowledge. We have received two parts.*

16. Observations on Distortions of the Spine; with a few remarks on Deformities of the Legs. By LIONEL J. BEALE, M.R.C.S. pp. 102. Wilson, May, 1831.

17. Official Papers on the Medical Statistics and Topography of Malacca and Prince of Wales' Island, and on the prevailing Diseases of the Tenasserim Coast. By T. M. WARD, M.D. and J. P. GRANT, Esq. Quarto, Penang, 1830.

18. Ornithological Dictionary of British Birds. By CAS. G. MONTAGU, F.L.S. Second Edition, with a Plan of Study, and many new Articles and original Observations. By JAMES RENNIE, A.M.A.L.S. Professor of Natural History, King's College, London, &c. Octavo, pp. 592, 1831.

☞ *This is a treasure of ornithological knowledge, elegant amusements, and useful information. The wood-cuts are numerous and excellent.*

19. The art of preventing the Loss of Teeth. By JOSEPH SCOTT, Dentist. Octavo, pp. 100, May, 1831.

20. An Introductory Lecture delivered at the College of Physicians and Surgeons of the City of New-York, Nov. 1830. By John B. Beck, M.D., Prof. Mat. Med. and Medical Jurisprudence in University State of New-York.

☞ *An elegant and impressive address.*

21. American Medical Biography; or Memoirs of eminent Physicians who have flourished in America, &c. By JAMES THACKER, M.D. Two volumes, 8vo. with numerous Portraits. Boston, 1828.

☞ *This work contains a great fund of instructive biography, interesting even in this country, but particularly so beyond the Atlantic.*

22. Lecture on the Anatomy, Physiology, and Pathology of the Eye. By THOMAS FIRTH, Surgeon. Octavo, sewed, June 1831.

23. The History of Medicine, Surgery, and Anatomy, from the Creation of the World to the Commencement of the 19th Century. By WILLIAM HAMILTON, M.B. In two Vols. 8vo. pp. 419 and 308. 1831.

☞ *Of this work, due notice will be taken in our next Number.*

24. Description of Distinct, Confluent, and Inoculated Small-pox, Varioloid Disease, and Cow-pox; illustrated by Thirteen Plates. By J. FISHER, M.D. Quarto, pp. 73. Boston, (America,) 1829.

☞ *This is a very valuable and meritorious performance.*

N.B. Authors and Publishers are to recollect, that this Journal is re-published in the United States *verbatim*, and, consequently, the BIBLIOGRAPHICAL RECORD is the most extensive advertisement, and the most permanent which a Work can receive.

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NOTICES.

WE have received another Fasciculus of the "Anatomical Demonstrations" published by Mr. SCHLOSS. We have already expressed our favourable opinion of this well-executed work, and we need not now repeat it. The objects of the Publisher have, also, been noticed, and the advantages likely to accrue to the public have been pointed out. The present Part contains representations of the Eye, the Nostrils, the Heart with the Fœtal Circulation, the Arteries of the Face, and of the Liver, &c. We perceive that Mr. SCHLOSS has reaped golden opinions from all sorts of anatomical teachers, and we trust he will be rewarded substantially. We shall report progress as the remaining Plates come to hand. English letter-press reference is in preparation.

MR. WALLACE, of Dublin, Surgeon to the Skin Infirmary, and to another hospital of that city, has requested us to state, that he has at present in the press, and will speedily publish a Treatise on the Venereal Disease, with Illustrations drawn from Nature, and coloured from life. We regret that, at this late hour, we have no space for pointing out the nature and objects of the work. We have been favoured with a sight of many of the drawings, and we will venture to affirm that the profession, when the plates are published, will express but one opinion, and that admiration of their excellence. The drawings, however beautiful though they be, and useful as they are likely to prove, are considered but as illustrations of the author's experience and views. He has studied the subject with unwearied assiduity for twelve years; he has pursued the investigation in the Baconian manner; and we are deceived if the results be not highly creditable to himself and advantageous to the public. The work will probably appear in November. In our next we shall probably have the pleasure of putting our readers in possession of Mr. Wallace's opinions.

THE
Medico-Chirurgical Review,

No. XXX.

JULY 1, to OCTOBER 1, 1831.

I.

REPORTS OF MEDICAL CASES, SELECTED WITH A VIEW OF ILLUSTRATING THE SYMPTOMS AND CURE OF DISEASES, BY A REFERENCE TO MORBID ANATOMY. By *R. Bright, M.D. F.R.S. &c.* Lecturer on the Practice of Medicine, and one of the Physicians to Guy's Hospital. Two vols. Quarto, with 38 Plates. Longman, Rees, Orme, &c. London.

UNDER no circumstances can disease be treated or studied to such advantage as in hospital. In private practice experiments of uncertain issue can seldom be attempted, the wisest precepts are often violated, and the most appropriate prescriptions counteracted; cases of interest must frequently be concealed, and results, which the arrangements of a hospital would have unfailingly secured, are not rarely averted by negligence, ignorance, or obstinacy. In hospital, disease can be seen in such variety of character and studied with such efficient facilities; symptoms can be traced with such unmasked perspicuity, and medicines can be administered with such watchful precision; patients can be so rigidly restricted to medical discipline, and the entire history of morbid action can be chronicled with such certainty, fulness and satisfaction, that no symptom may escape unnoticed, nor remedy remain untried. Every curative agent, which ingenuity can suggest, can be safely prescribed; and every prescription can be fairly tried, without compromising the patient's welfare, or endangering the reputation of the practitioner.

If such, then, be some of the recommendations of a hospital for the study and treatment of disease, is it not vexatious to find that medical literature owes less to the hospital physicians of this metropolis, than to any other class of the profession! It cannot be denied that, in ample scope for observation, our general hospitals are not surpassed by any similar establishments upon the Continent, and it is universally known that their medical officers are most handsomely remunerated for their

services ; yet it is equally certain that, in turning up the title-pages of our best works on medicine, we shall search in vain for the names of our hospital physicians. Were it not for *lecture lists*, which are periodically met with in the columns of the daily press, the very names of most of them would be unknown to the public, if not to the profession ; and it is, probably, a question with many, how far the notoriety, which is acquired through the medium of pupils' fees, can enhance their literary reputation, however far it may augment their interest in the funds. It were most desirable that the governors of these noble institutions enforced it on the medical attendants, as one of the most important duties connected with their office to journal the most interesting cases of disease which come under their superintendence ; and that a clinico-medical fund were appropriated from the general revenue, to defray the expense of annually supplying the faculty with such histories of disease as merited publicity. As hospitals are at present conducted in London, the public are kept in total ignorance of their internal management. The cells of the Spanish Inquisition were not sealed up from public observation with a much stricter secrecy. We neither know the number of the diseases annually admitted ; their type, treatment, or duration in hospital ; or the number of patients who annually recover, are relieved, uncured, or die. Hundreds of cases are yearly passing through their wards, which private practice seldom gives the private practitioner an opportunity of witnessing ; and we cannot refrain from designating it an act of gross injustice to the very best interests of medicine thus to appropriate to the personal aggrandizement of a favored few most important facts, which whole centuries may not disclose in the ordinary walks of practice, and a luxuriant experience which the most unwearied private industry may be unable to collect. If our select and very privileged fraternity be too indolent to draw for themselves out of the fountain of knowledge, or too learned to profit by any further draughts from the Pierian spring ; let them no longer occupy a station, which they must be satisfied they do not fill, nor cease to retard the advancement of medical science, by withholding from others what they are themselves equally unable to improve or enjoy.

With such sentiments upon this subject, it gives us unfeigned pleasure to find in Dr. Bright a very prominent exception to this general censure, and to hail his talented efforts to render it inapplicable to the hospital over which he meritoriously presides. Somewhat more than two years ago it fell to our province to bring before the notice of our readers the *first* volume of a projected series of "Medical Reports" by the present author, and the character, which was then stamped upon it, has since met with ample confirmation, not only in our own coun-

try, but upon the Continent. The *second* and *third* volumes are now before us, and in the progress of our review abundant proof will be adduced, that they are neither unworthy of their predecessor, nor of a train of subjects which has for the last twenty years been occupying the pens of our very choicest pathologists. For extent of matter and variety of detail they are, indeed, considerably superior, and the plates, with which they are enriched, are in our estimation the most perfect which British morbid anatomy can boast. From the desire of communicating a very vivid impression of the post-mortem appearances, the plates of the last volume were, probably, too richly coloured; but the present pencil has laboured to avoid this common error, and whether we canvass their fidelity to Nature, or confine our criticism to the beauty of their execution, they do equal credit to the artist and the author. In the second volume are described Inflammation of the Brain and its Membranes—Acute and Chronic Hydrocephalus—Delirium. Tremens—Apoplexy—Palsy—Concussion and Spina Bifida. the third contains Hysteria—Chorea—Palsy from Mercury—Neuralgia—Epilepsy—Tetanus and Hydrophobia. A catalogue of maladies much more limited and unimportant would merit extended notice; but when two ponderous Quartos, containing 700 pages, are devoted to their consideration, we despair of doing any thing like justice either to the Doctor or ourselves, in fewer than three successive articles of somewhat more than our ordinary size.

When the arachnoid is inflamed serum may be effused upon the surface, within the ventricles, or at the base of the brain;—lymph or pus may likewise be deposited in these several regions;—or adhesions may form between the arachnoid and pia mater, or pia mater and brain. The symptoms, which attend these several results of arachnitis, are somewhat different; but the lines of demarcation, by which they are separated, are often so faint and always so ill-defined, that the most experienced eye may confuse their respective limits. It is fortunate, however, that the influence of such minute diagnosis upon practice is generally unimportant. Inflammation of the brain and inflammation of its membranes, effusion upon the surface, or within the substance of the cerebral tissue, are, after all the hair-breadth definitions which have been made of them, substantially the same diseases differently denominated; and whether the serum, lymph or pus, which are effused, be deposited between the dura mater and arachnoid, or between the arachnoid and pia mater, within the ventricular cavities or upon the floor of the cranium, is more a matter of nice pathological distinction than practical arrangement calculated either to suggest or guide corresponding varieties of cure. Dr. Bright does not, therefore, attempt a division, which is unconnected with treatment, and scarcely sanctioned by symptoms. He briefly enumerates the general phe-

nomena of cerebral inflammation, and he merely adds that—"all these symptoms suffer considerable modifications, both from the situation and acuteness of the inflammation, and from the stage of its progress and the consequent changes which the parts are undergoing." Sometimes the approach of the inflammation is insidious and its progress slow; at others its attack is as sudden as its advance is quick.

A young man (9th case), while in the enjoyment of excellent health, was suddenly seized with intense pain over the eyes, followed by severe sickness and vomiting. For the first five days he retained his intelligence, but after that period he scarcely ever spoke, and on the 15th day of the disease when he was admitted into Guy's Hospital, his face was flushed, eyes fixed and suffused, pupils rather dilated and nearly insensible, breathing sonorous, deglutition imperfect; he lay upon his back in bed, passed his dejections, which were of a dark brownish-green colour, unconsciously, and he was unable to articulate. His scalp had been scarified before admission, a blister had been applied to his nape, and mercury had been exhibited till his gums were tender. Dr. Addison ordered 10 ozs. of blood to be drawn from his epigastre by cupping, a blister to be placed between the shoulders, and cold to the head; but convulsions came on, he frothed at the mouth for some hours, and died during the evening of the day on which he was admitted. *On inspection* the veins of the pia mater were found turgid with blood, the convolutions of the brain were much flattened, the medullary substance, when incised, presented more bloody points than natural, the ventricles contained three ozs. of limpid serum, the plexus choroides were unusually turgid, the vessels at the base of the brain were very full, and half an oz. of clear fluid was deposited upon it.

This man had been sadly neglected before he came into the hands of Dr. Addison; but we have some difficulty in discovering how his prospect of recovery was improved by the abstraction of blood from the pit of the stomach. His sickness and vomiting had no more to do with gastric disease, than a tender knee-joint has to do with diseased hip; and if the treatment were revulsionary, opening the saphena vein might have secured the Doctor's object more certainly. In the 68th case the suddenness of the attack is only equalled by the rapidity of the symptoms; and the extent of evil, which may exist within the head, compatible with the non-existence of all external signs, cannot be more strikingly illustrated.

A young man, 22 years of age, was treated for some febrile symptoms, in which a slight affection of the chest was the most prominent feature. After a little blood had been abstracted and a blister applied to the chest, pain in the head was for the first time

complained of. It was shaved and cold water was kept constantly applied, but on the day following he became insensible, his head was drawn back upon the pillow, his right arm and leg were convulsed, his left side was semi-paralytic, his face was flushed, his skin hot, and pulse quick; and after continuing in this state for 72 hours he died. The vessels of the dura mater and longitudinal sinus were full of dark-coloured fluid blood. The pia mater was rather vascular, and it adhered with such firmness to the brain as to be inseparable without drawing "with it a complete, thin, unbroken layer of the cineritious substance, which thus formed an even coating to the internal surface of the membrane." The substance of the brain was natural in vascularity, the ventricles contained at least three ozs. of limpid fluid, but the choroid plexus was pale, and the lining membrane did not appear unhealthy.

The intimacy and strength of the adhesions, which existed in this case between the surface of the brain and pia mater, render it tolerably evident that inflammation was working its effects upon these organs for a considerable period prior to the appearance of any cerebral symptoms; and, although such unnatural adhesions are not uncommon, it does not often happen that they are either so firm, or so extensive. The chronocity and tardiness of the 69th case will strikingly contrast with the vigor and activity of that now given.

A man aged 56, who had for the last two years been in rather a declining state of health, but without acknowledging any pain of head or betraying any formidable symptoms of disease, was seized on the 3d of March with shivering, purging and vomiting. On the 4th he lay listless and stupid, saying that he was better and refusing to have medical advice. On the 5th he still denied having headach; but as he had no prospect of improving, a surgeon was sent for, who found him labouring under symptoms of cerebral congestion, with an oppressed pulse, dry brown tongue and unwilling to reply to any question. Next morning he became quite comatose, and 14 ounces of blood were drawn from the arm without relief. He lay on his back senseless, and nearly motionless, his left arm was bent and its fingers were somewhat convulsed, while the right lay by his side weak, but still capable of motion. His breathing was hurried and sonorous, his face flushed, skin hot, pulse slow, abdomen tumid and slightly tympanitic. The blood, which had been drawn, was covered with a thick size, and looked like badly clarified jelly. Twelve ozs. were taken from his nape by cupping, and a blister was afterwards applied; the scalp was refrigerated by an embrocation, and a purging enema was administered. In the evening he seemed rather more sensible, and gave a distinct negative to one or two questions respecting any pain he might suffer; but his eyes remained shut, his pupils were inactive, he swallowed with extreme difficulty, and after having been once more cupped on the nape to 8 ozs.

he died at one o'clock on the morning of the 7th. Beneath the arachnoid a layer of puriform lymph, which had been effused into the vascular network of the pia mater, was found covering the whole superior surface of both lobes, and extended, but in smaller quantity to the superior surface of the cerebellum, to the lateral and inferior surfaces of the brain. The arachnoid and pia mater were inseparable and easily torn, the lower surface of the latter membrane was very vascular, but the substance of the brain was quite healthy, and a quantity of fluid, very little larger than usual lay in the ventricles.

The successful issue of the 11th case, which the Doctor considers to have been marked by symptoms of commencing effusion into the ventricles, must be ascribed to repeating blistering, and the continued exhibition of grain doses of calomel. A man, aged 34, who had occasionally during four years suffered from pain in the head and limbs, for a month before his admission into hospital was afflicted with intense headach, for which he had been cupped and bled with partial relief. When admitted, his vision was so far impaired as to be unable to distinguish the figures on a watch, he complained of numbness of the left arm and thigh, his countenance was dull and vacant, the pain of which he complained in his forehead, was principally confined to the right side, his articulation was slow and his pulse oppressed. One grain of calomel was at first given every eight, and afterwards every four hours until his gums became tender, when it was again exhibited thrice daily, and the nape was kept constantly blistered. The pulse gradually rose from 62 to 72, 80, and at last 100; his eyes became less dull, he walked with a firmer step, his headach ceased, and in about six weeks he left the hospital without complaint.

The cases, which we have now extracted, are well calculated to illustrate some important peculiarities in the manner, in which ordinary arachnitis makes its approach and proceeds to its termination in ordinary constitutions. But where the nervous system has been impaired by debauchery, and where there is more irritability than phlogistic diathesis, inflammation of this membrane is marked by symptoms and requires treatment which have not yet been mentioned. *Delirium tremens*, we need scarcely add, is the affection to which in this observation we allude.

A robust woman, of 30 years of age, whose habits were intemperate, had been seized with a fit of delirium for which she was bled, blistered and purged; but as she had afterwards been occasionally delirious, she was placed under the Doctor's care. When he saw her she spoke collectedly, but her manner was very hurried, her actions were quick, her pulse was 108, sharp, she was thin, her tongue was furred, dry and rough. Fourteen ozs. of blood were withdrawn, a pill containing two grs. of calomel and four of hyosciamus was given every

four hours, and a little oil was ordered for her bowels. The blood was inflamed, but the operation did not produce any good effect, for towards evening delirium came on which required restraint, and her stools were passed unconsciously. Venesection was repeated to the same extent, the quantity of calomel contained in the pill was doubled, the head was shaved, and cold was applied. Temporary relief followed the bleeding, but soon after she became delirious and continued so throughout the night. A quarter of a grain of tartar emetic was added to each pill, and as the bowels were confined, half an ounce of oil was given. During the next four days no change occurred under this plan of treatment, after which her mouth became sore, delirium subsided, and the pills were omitted. With the exception of occasional pain in the head, for which a few leeches were applied to the temples, and some tartar emetic ointment was rubbed on the nape, her cerebral symptoms gradually subsided, and after six weeks attendance she was dismissed cured.

In this case there was obviously considerable inflammatory action, and from the appearance of the blood, the violence of the symptoms, and the state of the pulse, some might not have restrained the lancet to a second application; but from the intemperate character of the patient, the extreme irritability of her constitution, and the evident increase of delirium, which followed each depletion, we have little doubt that while the lancet may have prepared the habit for the more effectual and rapid operation of mercury, it is to this medicine we must especially look for the complete and permanent removal of the disease. In the sixth case, which is from the pen of Dr. B. Babington, the symptoms and treatment are extremely similar. Bleeding had been employed at first with temporary, but afterwards equivocal relief and suspecting that the lancet had done no good, Dr. Babington adopted the soothing plan. Opium in powder, tincture and pill was given in liberal doses, the delirium, watchfulness and irritability, subsided, and in less than a week he was in a state of perfect convalescence. In the fourth case the patient was bled in the recumbent posture to 24 ozs. when he became faint, and six leeches were applied to his temples, which had the effect of rendering him less violent, but did not abate his delirium; in the fifth case local bleeding, both by leeches and cupping-glasses, was tried with only temporary relief; in the seventh case the leeches, which had been applied to the temples, materially aggravated the symptoms; and in the thirtieth case depletion was tried on rather a large scale with very doubtful effect,—while every instance, in which soothing treatment was early and steadily pursued, either rapidly recovered, or showed in the subsequent alleviation of its symptoms how much more congenial was such a plan to the nature of the action upon which the disease depended. In the 67th case the patient was found in a state of violent agitation requiring restraint, his pulse was frequent, manner quick, and his eyes were constantly in motion. Cold was applied to the head, five grains of hyosciamus and two of calomel were ordered every four hours, and his bowels were freely excited by opening medicines. On the fifth day his mouth was

tender, his mind gradually regained its tranquillity, and he rapidly got well. This man had been much addicted to drinking for some days before his attack; he had occasionally felt, while on the streets, momentary aberrations of mind, and when conveyed to the hospital he fancied that he had been accused of some crime, was going to prison, and would be executed.

It is now, we believe, tolerably clearly ascertained that in most cases of delirium tremens, the constitution is unable to withstand much active treatment, and that, although the membranes of the brain are generally in an evident state of inflammation, the local disease is so modified by the enervated condition of the general system, that if depletion be at all admissible, it must be employed early, cautiously, and in conjunction with such medicines, as are more calculated to diminish action by obtunding excitement, than by depressing strength.

"It cannot certainly be laid down as a rule that in such cases bleeding must never be had recourse to; but that it should be adopted with much caution cannot be doubted, and it should be immediately followed by the administration of opiates combined with calomel. The very early use of tonics, and even stimulants, will in many cases be advisable; and improvement in the diet, more particularly the substitution of some solid food, together with a limited quantity of malt liquor, instead of slops, will be beneficial; and in all cases the strictest attention must be paid to the removal of every source of mental disturbance and excitation; and with this view, all restraint, except such as is absolutely necessary for the safety of the patient and his attendants, should be avoided. The head should be constantly cooled by evaporating washes, and the atmosphere should be kept as cool and as pure as possible. The calomel, in conjunction with more or less opium or hyosciamus according to the degree of irritability, should be continued till the symptoms have completely subsided, or the mouth is affected." 26.

The membranes of the brain, like every other part in the animal frame, may suffer, not directly, but, *by sympathy with diseased organs*, situated at a distance from them. Thus, irritation of the brain may be induced by hepatic, gastric, or intestinal disorder; this irritation may pass into more active derangement, if the operation of the cause continue; inflammation may ultimately be established, and the original disease may become so masked by the cerebral affection, or so secondary in importance, as at length to escape all notice. In Dr. Bright's first volume of Reports, several cases of this description were detailed while upon affections of the intestinal lining in fever, and a few more are here added to complete the series.

A young lady (Case 31) contracted a slight cold while in London on a visit from the country, for which five grains of calomel were taken. The next day, however, brought no alleviation of the symptoms, cerebral excitement came on, she was regarded as labouring under an attack of phrenitis, and was treated accordingly; but she sunk on the fourth day of the disease without betraying any unusual tenderness in the abdomen. On opening the head not the least trace of disease could be detected, but the lower part of the mucous lining of the ileum was studded with diseased glands in various stages of enlargement; the valve of the colon was covered with a layer of coagulable lymph, and the colon itself was similarly affected.

On two important accounts this history is valuable. It strongly shows

how far intestinal disease may proceed without producing abdominal tenderness; and how violent inflammatory cerebral symptoms may appear, without leaving behind them, after death, upon either the membranes or substance of the brain, the slightest vestige of disease. In the 33d case, what is considered the secondary affection of the brain was much more serious; but to us it is very questionable whether, in this instance, the cerebral disorder were not coeval with the intestinal disease. In fever, nothing is more common than to see the head and the abdomen suffering simultaneously from the commencement, and proceeding in intensity with equal step throughout the entire course of the disorder. The girl, whose case is here given, had been labouring under fever for a week prior to admission, and no account is given of the symptoms worn by her complaint during that period. When first seen by the Doctor, she was delirious, very restless, constantly tossing her arms about her face, was covered with perspiration, her tongue was dry and brown, her pulse was 120, she neither complained of head-ach, nor abdominal tenderness, had much subsultus tendinum and her pupils were dilated. One grain of mercury was given every six hours, cold was applied to her head, a blister to her nape, and she was ordered a purging enema. On the next day, her pulse was 145, her respirations were 60, a tendency to ecchymosis appeared in various parts, she was more comatose, her hands were cold, and she died on the following morning. The vessels of the brain were generally turgid, its substance was unusually vascular, and some serum was effused beneath the arachnoid and upon the base. The lining membrane of the stomach was vascular, and in some parts slightly ecchymosed; the mucous surface of the small intestines was also vascular, the mucous glands in the duodenum were considerably enlarged; about a foot of the lower part of the ileum contained patches of thickened and elevated aggregate glands, some of which were passing into ulceration; the cæcum was very dark and vascular; the glands of the mesentery were purple and enlarged.

The next case is from the pen of Dr. Dill: but as many of its features are of a very peculiar character, it shall be noticed on another opportunity. The 37th history strikingly illustrates how violently the brain may sympathize in an irritable habit from a very trifling injury received by one of the lower extremities.

A robust seaman, aged 25, who had once been much addicted to intemperance, received a contusion on the knee, which swelled and became painful, but was gradually improving, when he was suddenly seized, during night, with head-ach, stiffness in the neck, pain in the back and loins, vomiting and purging. Two days afterwards, both legs became swollen and painful, symptoms of general fever appeared, succeeded by delirium, and, when admitted into hospital, there was a small ill-looking ulcer on the left patella, and the back part of the leg was swollen, tense, red, and acutely sensible; but the knee-joint was unaffected. The right leg was still more tense and painful. Powders, composed of tartar-emetic, opium, and calomel were given every six hours, with a saline mixture; cold was applied to the head, and a warm spirit-lotion to the legs. The general symptoms unabating, and the right leg and the foot being threatened with gangrene, Mr. Key made a free incision, of considerable extent, upon both the inner and outer sides of the leg, which gave issue to a small quantity of bloody serum.

The cellular tissue was not much infiltrated, and the muscles appeared healthy. A poultice was then put over the limb, porter and other means of support were ordered, five grains of the extract of hyosciamus were given every four hours, a sinapism was placed on the epigastre, and the bowels were urged with opening medicine. The delirium and every other symptom continued unabated, and stimulants were given in large quantity, but he gradually sunk during the evening of the next day. No disease could be discovered in the contents of the cranium, if we except as such an unctuousness on the surface of the arachnoid; the heart was very much contracted, entirely closing up its left ventricle; the surface of the left lung was slightly ecchymosed, and a quart of brown-coloured serum occupied the left pleural sac; the spleen was soft, but the other abdominal viscera were quite healthy. The right leg was livid, the cuticle about the upper part was raised, the cellular tissue surrounding the muscles was infiltrated, inflamed, and in some parts sloughy, the soleus was soft, and its surface was stained of a dark colour. The left leg was similarly diseased, but not to the same extent. The veins of both limbs were quite healthy.

In the 42d case, a gentleman who had lived for some time between the Tropics was the subject of disease. When seen by the Doctor, he exhibited marked symptoms of cerebral excitement. His mental faculties were unusually active, his eye was red and glistening, and he complained of headache. The colour of his face was icteroid. On pressing the region of the liver, he immediately evinced signs of pain. After being cupped from the nape, bled from the arm, and taken several calomel purges, he was more mild; but it was only after the re-establishment of the biliary secretion, by cupping over the liver, and affecting the mouth with mercury, that his natural complexion returned, and his cerebral symptoms disappeared.

There can be no doubt of the existence of hepatic disease in this instance, and as little of the relationship between that disease and the cerebral affection. The general bleeding and the blood, which had been drawn from the nape, no doubt checked the progress of the secondary symptoms; but until the exciting cause was effectually removed, by restoring the functions of the liver to their natural state, the brain continued to labour under the effects of sympathy. When the scalp, or skull is injured by external violence, the inflammatory action thus awakened not unfrequently extends to the membranes of the brain, and the same consequence is often witnessed in erysipelas of the face and head.

It has long been a question with medical men, whether those, who are labouring under *erysipelatous disease*, should be considered capable of imparting that disorder to the uninfected, and the profession have regularly marshalled themselves into two parties upon this controverted point. If the reader will refer to our review of Mr. Lawrence's paper on the treatment of erysipelas which attracted considerable notice about two years ago, they will there meet with some very interesting materials in illustration of this question. Several cases and some important authorities were then brought forward in proof of the contagiousness of this disease. Some indisputable evidence to the same effect has occurred to us since, and we are now as well assured that some forms at least of erysipelas are endowed with as communicable a property as typhus fever, small-pox, or measles. It is gratifying to find an observer of Dr. Bright's opportunities and talents throwing the

weight of his authority into the scale of the contagionists. The following interesting cases will be read with attention.

The wife of the patient (49th case) whose case is given in the 48th history which will be immediately detailed, and who had assiduously attended him during his illness, was seized with symptoms of erysipelas just as his attack was on the wane. Punctures were employed in three or four instances, but with little success; the inflammation spread from the face over the upper part of the body, and terminated at last in abscess on the right side of the neck.

(50th Case.) One of the nurses, who had charge of several very severe cases of erysipelas, was seized with febrile symptoms, which were succeeded by erysipelas of the nose and right cheek. A great number of punctures "amounting to some thousands" were made over the inflamed surface, and they were sponged with warm water. These punctures were repeated, at least, twice every day, little or no vesication took place, and although her fever ran high, she betrayed a strong tendency to sleep, and much despondency, no medicines, but the simplest salines and gentle purgatives, were required, in addition to the local treatment, to complete the cure.

A stout muscular man (Case 44th) aged 37, who had been very intemperate, was attacked by erysipelas of the face, just as his wife was convalescing from a similar affection. After two days he was delirious, opium and wine were ordered in large quantities, and blood was taken from the arm; but, from the supervention of syncope, to a small amount. When first visited by the author he was prostrate on his back, constantly talking and occasionally laughing. The left side of the face was covered with erysipelas of a dark colour; the pulse was 120, weak; tongue dry; and when closely pressed he acknowledged some headach. His head was shaved and kept cold, sinapisms were applied to the feet, blisters to the nape, opium and calomel were freely given, his bowels were preserved in an active state; and means were had recourse to for the support of his strength. The disease, however, extended over the scalp, the breathing became laborious, the pulse more frequent, the evacuations were passed involuntarily, the nates excoriated, delirium gradually subsided into coma, and he died four days afterwards. A considerable quantity of serum was infiltrated into the integuments of the scalp, the arachnoid was thickened and opaque in several parts, and contained beneath a considerable quantity of serous fluid. The large veins of the pia mater were turgid, the substance of the brain was pale and flabby, a small quantity of secretion lay in the ventricles, and much at the base of the brain and in the spinal sheath.

Dr. B. strongly reprobates, in the treatment of erysipelas of the head, the indiscriminate employment of stimuli, as peculiarly calculated to do irreparable evil. As a general rule he would abstain from all such measures, until the patient's strength imperatively called for them, and in the early stages he would bleed, generally from the arm and locally from the nape, purge mildly, and produce gentle diaphoresis. He very justly lays much stress upon the local treatment.

"Blisters to the nape of the neck, and that particular mode of scarification which has been recommended by Dr. Dobson, of Greenwich Hospital, which as far as I have myself had an opportunity of watching its effects, I consider one of the greatest improvements in

modern medicine. This consists in making fine punctures, in number amounting to several hundreds or even thousands, with the point of a lancet over the whole inflamed part; then fomenting with warm water in a sponge, to encourage the bleeding; and repeating this operation two or three times in the twenty-four hours, if the parts look red or tense. If done early, it shortens the disease; but at all events it relieves the vessels in a manner which nothing else in my experience has effected." 97.

We have had very frequent opportunities of verifying this favourable character of acupuncture in erysipelas. In many instances we have arrested the further progress of the disease by making numerous fine punctures over the inflamed part, and we have found it of great importance to puncture the circumference of the diseased surface more abundantly than the centre, or interior. If small punctures be very liberally made around the boundary line of the disease, as soon as it makes its appearance on the face, and if the other antiphlogistic measures now specified be judiciously employed according to the strength and habits of the patient, we shall in many instances circumscribe the evil within its original limits, as effectually as they do in France by applying blisters along the inflamed margin; and with much less pain. If, however, this treatment be neglected until the disease have made considerable progress upon the skin, until vesication have appeared, and the brain begins to sympathize; the good, which it effects at this eleventh hour, is partial, and it seldom, so far as we have seen, has curtailed the further march of the inflammation. Punctures may be made in parts of the body and in constitutions in which lengthened incisions would be wholly inadmissible; but we have found them of greatest value in erysipelas of the face, and where the strength had been seriously reduced by previous disease. We prefer the point of a narrow shouldered lancet to any form of needle which we have yet seen; and while the depth of the puncture should be regulated by the depth of the disease, we have generally found it useful to empty as many of the superficial vessels as possible. The two succeeding cases will show, not only the value of this remedy, but also the degree to which the period of its application influences its effects.

A young woman (case 45th) who had just recovered from an attack of pneumonia, was seized with erysipelas of the face, beginning on the nose, spreading over the whole face and scalp, and at last invading the lining membrane of the nostrils and fauces. The scalp, forehead and face were punctured twice, and fomented during the first day. The relief produced was great, the incipient delirium, which had appeared, was checked, and the inflammation subsided. Puncturation was repeated the following day with equally good effect, but when the external disease was thus so far reduced delirium returned, for which a blister to the nape was considered necessary. This was removed, and the cure was completed by slight tonics.

(Case 48th.) A middle aged man was admitted into hospital labouring under erysipelas, and almost in a state of coma. The right side of his face and nose, part of the left cheek and throat, back of his neck and shoulders were swollen and red with erysipelatous inflammation. His manner was hurried, pulse 140, respirations 30, and his bowels purged. His head being shaved, punctures were freely and repeatedly made over the forehead, nose, cheeks and chin, the bleeding was encouraged by warm sponges, and he took some saline mixture. On the next day the inflammation was ob-

viously diminished, but still considerable, the eyes were closed up and the whole scalp was swollen. The face, scalp and ears were again punctured, and a small artery in the scalp, which the lancet had opened, poured out at least half a pint of blood, and ultimately required to be divided. A purging enema and a febrifuge mixture were given. During the evening the punctures were again repeated, next day the swelling both of the face and scalp was greatly relieved, and four days afterwards the face had desquamated, the tumefaction has subsided, and the erysipelas, which had travelled slowly down the back, had assumed the gentlest character.

In the 51st Case a young girl, labouring under syphilis, was attacked by erysipelas of the face. The head was shaved, punctures were made twice daily, a saline mixture was employed, and in a short time she got well. In the 52d Case a paralytic patient became the subject of this disease, and punctures were had recourse to; but although the right cheek alone was first invaded, the whole face and scalp were ultimately involved. So early as the second day of the disease, the strength required support, first in the form of beef-tea and infusion of serpentaria, and afterwards by means of wine and ammonia. Very little vesication occurred, the face desquamated freely, and complete recovery followed. A man labouring under disease of the stomach was the subject of the 53d case. On the 24th of November erysipelas appeared upon his face, he became delirious, his hands tremulous, and his tongue brown. The affected part was liberally punctured four times, and salines were freely given. In less than a fortnight this patient was convalescent. Before this attack of erysipelas his stools had been mixed with blood, and untinged with bile; but for several weeks after his recovery, bile was secreted in sufficient quantity, and his stools resumed their natural colour. In the 54th and last case a man, who had been for years subject to severe attacks of ague, which had evidently diseased his spleen, and much reduced his general strength, and who had in February passed through a dangerous attack of small-pox, was seized in March with erysipelas of the right leg, which was treated by punctures. To this succeeded severe erysipelatous inflammation of the face, which was overcome by the same means, and he left the hospital on the fifth of May with no other disease than the enlargement of his spleen. No one can attentively examine the symptoms, treatment and results of these cases, without attaching considerable importance to puncturation in the accomplishment of their cure. In every case, in which it was employed early in the disease, the violence of the general symptoms evidently abated, and the progress of the local affection was obviously retarded, when not arrested. And in no instance here detailed, or that we have yet seen, has this practice been followed by any bad effects.

"I do not remember to have seen a fatal case where the punctures were used early and persisted in strictly. At the same time, I should be very sorry to be considered as advocating the infallibility of this or any other remedy: for no doubt cases occur which will prove fatal under any treatment; and as there is sometimes an insuperable difficulty in persuading the patient to submit to the use of this particular mode of treatment, it is satisfactory to know, that the majority of the cases of Erysipelas of the face and head do well whether punctured or not, provided the treatment be tolerably judicious in other respects: still, however, from a comparison of the cases which came within my knowledge before I

had adopted this treatment, and those which have occurred since, I am strongly persuaded of its utility. It affords local ease, and checks the severity of the cerebral and general symptoms; and if early employed, it prevents in a great degree the vesication, and, I think, diminishes the chance of suppuration in the soft and cellular structures, particularly about the eyes, where the formation of pus is very apt to take place. Provided the punctures are very minute, and not lengthened into small incisions, I have never seen them leave any permanent marks, even on the smooth skin of the forehead; nor am I aware of any circumstance of inconvenience or danger which can be regarded as affording a solid objection to this practice. As, however, there is a possibility that the punctures may sometimes remain visible, it will be right to take particular care in puncturing the parts most exposed to view." 105.

Inflammation of the lining membrane of the nose and frontal cells has been found in some instances to extend to the interior of the skull, and occasion delirium, coma, and the other usual consequences of severe phrenitis. The late Mr. John Pearson attended a child, who had been first attacked with erysipelas of the nose, and was subsequently seized with delirium and coma, under which it died. In a case recently witnessed by Mr. Toulmin of Hackney, after great discharge from the nose the patient died from the supervention of severe cerebral symptoms; and inspection after death discovered pus in the frontal sinuses, together with a cyst of muco-purulent fluid in one of the anterior lobes of the brain. Instances of chronic inflammation of the mucous membrane of the nose are not unfrequently seen to destroy the cartilages and bones of the head, and ultimately to affect the brain itself. At the close of catarrhal and continued fever, inflammation of the lining of the external passage to the ear and of the cells of the temporal bone is, however, still more common. Where the leading symptoms have been chiefly cerebral, and where the cerebral inflammation has not been completely subdued, ear-ache is a very common secondary affection in the close of fever. Throbbing pains are at first experienced around the region of the external ear, these are succeeded by a discharge of a fluid, which is at first serous, but afterwards becomes puriform, and the pain decreases on the increase of the discharge.

In general this affection has been found gradually to subside without any peculiar treatment. In some deafness, vertigo, and a distressing sense of noise in the head have complicated the other symptoms, and retarded recovery. And in a few delirium, convulsions, paralysis, and coma announce the extent to which the brain has suffered, and mark the closing periods of life. In such severe cases the bones of the ear become carious and are discharged, the membranes of the brain inflame and ulcerate, and the cerebral substance is disorganized. Scrophulous tubercles and fungoid tumors are occasionally discovered, and it is not unusual to find pus collected under the pericranium behind the ear, with the dura mater internally detached, and the temporal bone denuded. The Doctor has witnessed cases where, after discharge from the meatus externus, an abscess has opened behind the ear, bone has exfoliated, and recovery has been obtained with the sacrifice of the sense of hearing on that side.

A young girl (Case 55th,) was labouring on the 3d of February under low fever, gastric derangement, and indications of a chlorotic habit. On the 1st great pain of the right ear was complained of, three days after a

copious discharge of serous fluid appeared, which on the 19th assumed a puriform character. The pain gradually subsided, and with the exception of slight deafness for a few days all the symptoms disappeared. (Case 57th.) A little boy became the subject of malignant scarlatina. His headache was considerable, and the cerebral disturbance was so serious as to demand leeches to the temples. A serous discharge afterwards commenced from the ear, which on the day following became purulent. When first seen by the Doctor the whole auditory canal of both ears was lined with little vesicles, like the glands on the ice-plant, and the discharge was acrid and profuse. Mild astringents were employed, and as the child recovered from its fever the secretion declined.

A woman, (Case 58th,) aged 27, ill with scarlatina, complained much at first of pain in the upper part of the head, which gradually descended towards the ears. Five days after this time the left ear became painful and began to discharge; for which blisters were placed behind the ears. Considerable fever, with rigors, head and ear-ache ensued; pulse 125; skin hot. Saline and diaphoretic medicines were ordered, and the nape was blistered. Four days afterwards peculiar stupidity was complained of. This feeling increased to a sense of tipsiness, the stomach became disordered, but the discharge from the ear ceased. She had no head-ache nor delirium, and by keeping a blister between the shoulders for some time open, by relaxing the bowels, and giving gentle tonics, she was dismissed cured.

Such cases as these are slight and almost independent of medical treatment; but those which follow are more formidable and less easily cured.

A sailor, (60th,) aged 30, was admitted into hospital on the 23d of November with symptoms of fever, for which he was ordered a diaphoretic julep, a blister to the chest, and some castor oil. On the 2d of December he was much purged, his tongue was dry and brown, his voice got hoarse, and his pulse was 120. Compound chalk-powder and the hyd. c. creta were given to appease his bowels, an opiate linctus was ordered for his cough, and the blister to his chest was repeated. On the 5th there were urgent symptoms of fever. A calomel, opium, and tartar-emetic powder was given at night, ipecacuanha and conium three times daily, and the febrifuge mixture. By the commencement of January he was convalescent, and on the 17th a purulent discharge from the left ear for the first time appeared. Blisters behind the ears and upon the nape, kept open with savine ointment, were had recourse to; but on the 22d, a puffy swelling showed itself behind the left ear with increased head-ache, for which ten ounces of blood were drawn from the neck by cupping. On the 6th of March this swelling was opened, and discharged five or six ounces of pus. On the 25th it had again filled and was again emptied. From that time forward every formidable symptom declined, and he was dismissed cured on the 1st of May. Dr. B. believes that the dura mater must have suffered in this case, but the happy issue of the disease does not permit us to imagine, that the injury which it may have suffered was considerable. The 63d case is worthy of notice, being probably an example of scrophulous tubercle excited in the brain of a strumous patient by diseased ear.

A little girl, four years old, had for some weeks been afflicted with pain in the left ear, attended by a remittent discharge of puriform fluid, often

tinged with blood. Hearing on that side was much impaired, the sleep was disturbed, and she had all the signs of low irritative fever. The pulse was 110, quick and wiry, the skin hot, she complained of head-ache, and was occasionally convulsed. There was a direct ulcerated communication between the meatus and mastoid cells. Leeches were thrice applied to the ear, with the effect of diminishing the pain; laxative and sudorific medicines, with small doses of calomel, banished the febrile symptoms; a bread and water poultice was applied every four hours to the diseased part; infusion of cascarrilla with muriatic acid were given to improve the stomach, and she had every appearance of doing well, when she suddenly grew worse, was frequently convulsed, and died. The integuments behind the ear being divided, a ball of dead bone was easily detached from a carious cavity, formed partly out of the mastoid cells and auditory canal. When the probe was introduced into this cavity, it touched the dura mater and easily passed into the eustachian tube and cavities of the labyrinth. The left lateral and petrosal sinuses were filled with firm coagula. There was little serum in the ventricles, and none between the membranes of the brain. Close to the left ventricle, imbedded in the cerebral texture, lay a tubercle as large as a walnut, which was removed almost without dissection. The fore part of the cerebellum was stained with a purple hue, and in it was found another tubercle in the first stage of suppuration. Two small ulcerated apertures were discovered in that portion of the dura mater, which lines the temporal bones, and the outer surfaces of this membrane were coated with small purulent patches. On each side of the petrosal process was a carious opening, which communicated with the carious cavity from which the diseased bone had been removed.

John Sidney, (65th,) was admitted for a fungoid enlargement of the testis, but for eight months before admission he had been suffering under various complaints, which successively appeared. At first he was attacked by a severe cold, which ended in hæmoptysis; then came on ear-ache of the right side; this was followed by a sense of numbness in the right hand, leg, and right side of head; and, last of all, came on very severe pain in the forehead. When first seen by the Doctor his face was slightly paralytic, the left corner of his mouth was drawn up, the right hand and leg were quite useless, his countenance was dull and vacant, his mind occasionally wandered, his pulse was feeble, and he was affected with frequent sickness. Leeches were twice applied to the temples, a sinapism to the stomach, and a blister behind the ears. Ammonia julep was ordered every six hours, and soda water was given for drink; but he gradually became weaker, the right side lost all sense and motion, and he sunk in the course of a few days. On removing the scull-cap, the brain felt very soft underneath the membranes, which in their appearance presented nothing unusual; but in making an incision into the left hemisphere, the arachnoid, pia mater, and external surface of the brain were all united into a thin wall, which when thrown back displayed the cerebral substance reduced to the colour and nearly to the consistence of custard. When this liquid brain was removed to a level with the ventricles, a semi-transparent, pink-coloured, oval tumour was found, the surface of which was firm and red-coloured, while the interior was composed of a semi-transparent paste, which under the microscope seemed to be per-

vaded by many vessels, and had many of the properties of half-coagulated albumen. The right (a false type describes it as the left,) was quite natural, nor could any other vestige of disease be discovered in any other part of the brain. Both lungs were so crowded with fungous tumors, similar to that found within the brain, that not more than one half of each was in a respirable state. The right testis was ten times its natural size, and composed of cysts of a fungous nature. The glands of the left groin were enlarged, and in their centres were small lumps of earthy matter.

"This is a case remarkable for the extent to which three very important organs had become the seat of fungous disease. It appeared to have begun in the testicle, then to have attacked the lungs, and lastly to have affected the brain. The symptoms of disease within the head had not shown themselves till about five months preceding his admission into the Hospital. On looking back to the history of the case, there is reason to believe that for several weeks after the commencement of the cerebral disease, the symptoms were confined to such as indicated irritation and pressure from the morbid growth; and that not till within three weeks of his death had the more active developement of the fungoid tumour or some other circumstance paved the way for that mischief which terminated in the disorganization of a large portion of the brain surrounding the original disease." 129.

In the 66th and last case illustrative of this subject there was such general and extensive disease, as to render all diagnosis confused and unsatisfactory. The head affection was evidently the precursor of the rest, but how far the organs, which were subsequently attacked, were under the influence of the cerebral derangement, it is difficult to decide. A middle-aged man, who had lived very dissolutely, and had suffered severely from syphilis, was admitted into hospital with intense head-ache, accompanied by mental aberration and symptoms of general distress. About seven weeks before admission great pain had been felt in right ear, from which some bloody matter had been discharged with relief. The left became afterwards affected in the same way, but still more severely; and for seventeen nights before admission, his suffering and delirium were so great that persons were obliged constantly to attend upon him. Much unhealthy matter was discharged from his left ear with the effect of alleviating his sufferings in some degree; but the pain was still severe, his mind was incoherent, and he gradually sunk. A large sloughing abscess behind the left ear being cut down upon, the bone was found denuded of pericranium, rough and slightly discoloured. A little unctuous fluid lay between the dura mater and arachnoid. The brain was healthy, but the ventricles were distended with fluid. The lateral, petrosal, cavernous and circular sinuses were filled with dark, ill-conditioned pus, and the left side of the cerebellum exhibited a depression, which had been caused by a small collection of pus beneath the dura mater. The left jugular vein, until it joined the subclavian, was thickened, opaque, green, and filled with an unhealthy purulent fluid. In removing that part of the base of the skull, which contained the inflamed sinus, the cavity of the pharynx was opened, and a mass of lint in a most fetid state, sodden with pus, which seemed to have lain there for weeks, was discovered at its upper and back part. The cellular membrane of the mediastinum was filled with semipuriform fluid. A thin coating of lymph, and other effects of recent inflammation, were contained in the left thoracic

cavity, and the substance of the left lung was studded with small sloughing abscesses, filled with dark olive green, putrid matter, and surrounded by thin cysts. The right lung was in a similar state; "but here the most extraordinary sphacelus had taken place of the pleura costalis, and of a quantity of false membrane which had been deposited upon it. The whole of the 4th, 5th, and 6th ribs presented internally one dark green mass, dreadfully offensive in smell." Some turbid serum lay in the pericardium, which was coated with a layer of recently-deposited coagulum. The abdomen was healthy.

In such affections of the ear as have been now described, the treatment upon which any hope of benefit can rest is antiphlogistic. In mild cases leeches, cupping, fomentations, emollient or astringent injections and aperients will be found sufficient to overcome the inflammation and to arrest the discharge. In some instances the disorder is so mild, that the discharge acts the part of a spontaneous and sufficient cure, by gradually depleting the inflamed vessels. But in other cases there is either such an original complication of disease, or the brain, from some peculiar susceptibility not easily explained, so strongly sympathizes with the local affection as to induce symptoms of derangement the most ferocious and formidable, that whatever treatment is pursued is almost equally unavailing. If the inflammation have been neglected on the outset, and have been suffered to make its way into the interior and delicate structure of the ear without check or diminution, the brain is almost certain of being implicated under any plan of management; and effects the most disastrous may be certainly anticipated. In these advanced forms of the disease the Doctor has found blisters the most useful remedies. Mercurial fumigations may be tried, and if the extent of the disease were clearly ascertained, acid injections might be of service. The Doctor thinks it probable that in some cases, in which the mastoid cells are diseased, the trephine might afford relief; but no example of its application has been adduced.

In few affections, we believe, does our treatment suffer more from false pathological views than in *hydrocephalus*. Hundreds annually die victims to groundless fear respecting debility, dropsical diathesis, obstruction and congestion. The presence of water is considered by many as essential to a pure hydrocephalic state of brain, as it is to hydrothorax, or ascites, or œdema, or any other form of dropsy; and the existence of this water is referred, not to previous action or inflammation, but to vascular relaxation, constitutional debility, or some chylopoietic derangement. The very essence of the disease is actually overlooked; and the whole attention is engrossed by a mere accident, which is as uncertain in its occurrence, as is hydrothorax after an attack of pleurisy. We may have pure hydrocephalus without a drop of water in the brain, and we may have abundance of water in the brain without one symptom of hydrocephalus. It is not the presence of water which is to be dreaded, as much as the previous action upon which the existence of this water depends. If this action be prevented from taking place, or be arrested ere it have gone too far, there will in general be no effusion; if this action be neglected it will often destroy life before effusion can occur; and effusion may take place without either aggravating, or altering the symptoms which preceded it. The term, therefore, by which this

disease is designated, is most inappropriate and deceptive. It expresses not the thing signified, but a mere accident of the thing, and thus leads the practitioner to attach that importance to a consequence which is due to the cause. Water may be thrown out upon the surface, or into the ventricles of the brain, but in eight cases out of ten, we believe, before one drop is effused there is increased vascular action, if not decided inflammation, to be contended with. It is to this prior and causal state to which our treatment is to be directed, and not to the posterior consequential condition which may never occur, and adds but little, when it does occur, to the danger by which it was preceded. Debility is a phantom which the theorist alone can fear; effusion is a condition which the physician will rather prevent than remove; and hydrocephalus is a disease, which diuretics and tonics have seldom cured, when antiphlogistic measures have been unsuccessfully applied. It is gratifying to have Dr. Bright's support on a subject of such practical importance; for few have enjoyed more ample opportunities for observation, and few are better qualified, from their dispassionate coolness, dread of theory and love of truth, to trace these observations to their legitimate deduction. Hydrocephalus he decidedly regards as an inflammatory disease, and as only to be combated by anti-inflammatory measures. His recommendation, however, of antiphlogistic remedies is very judiciously guarded by restrictive cautions; lest from over-anxiety to escape one extreme the opposite error may be committed.

A boy, (Case 24th,) aged 20 months, who had always had a trick of "butting with his head," was suddenly seized with severe pain in his head while asleep in his mother's arms. Leeches were twice applied to the temples, blisters were placed behind the ears, the bowels were excited by calomel and jalap, and a mixture with squill and almonds was employed. When the Doctor first saw the child his face was pale, his head was hot and in a constant state of motion, but never raised from the pillow; the pupils acted, there was no strabismus, and the pulse was 120. As the boy was teething the gums were lanced, a cold wash was applied to his head, the bowels were fomented, ipecacuanha was substituted for squill, and one grain of calomel, with three of magnesia, was ordered every four hours. On the next day the stools appeared green and curdled, the child made more complaint, and his hand was frequently carried to his head, more especially when asked to point out the seat of pain. Three leeches were placed on the temples, and two grains of subcarbonate of soda, with half a grain of calomel and five of compound chalk powder, were given every three hours. During the next day mercurial inunction was commenced, and the leeches were repeated. On the 12th a blister was applied behind the ears; and with occasional blistering afterwards, the employment every eight hours of an antispasmodic mixture, stimulating pediluvium and mercurial friction, the treatment was pursued until the evening of the 17th, when the child died. From the 11th until his death the principal symptoms were convulsions, restlessness, and occasional insensibility. "On raising the dura mater all the larger veins on the surface of both hemispheres, running into the longitudinal sinus, were seen round and hard, quite filled with yellow-coloured coagulum, as if injected with wax; while the whole vortex was covered under the membranes with extravasated blood."

The longitudinal sinus was also occupied with a firm coagulum, which was composed almost entirely of fibrin. On cutting through the brain a little above the ventricle, a number of small round red spots were discovered, which a microscope revealed to be small extravasated coagula; and the outside of the anterior lobe of the right hemisphere was so softened, as to break down with ease upon the pressure of a finger. The ventricles were distended with fluid.

It is the opinion of Dr. B. that depletion was carried too far in this instance, and that the constitutional debility which ensued accounts for the tendency to coagulation, which existed in the blood. That by weakening the powers of life we promote coagulation of the blood is a physiological fact, which has been long acknowledged; and that by carrying depletion to an extent incompatible with the stamina of the constitution, we may give rise to such debility is equally ascertained; but when it is considered that in the present case 14 leeches only were applied, and, beyond one or two small blisters, no other measures of a depleting nature were adopted, some may have some difficulty in understanding how treatment so moderately active, in an attack so sudden and so ferocious, could have produced the result which is here ascribed to it. This boy had always been remarked for striking his head forcibly against objects which lay near him, proving that some cerebral disturbance had existed long before he became an object of treatment; and when it is known how insidiously and how long even inflammatory disease may be working its effects within the brain, one would rather ascribe any debility, which may have marked the close of this case, to its lengthened effects upon the constitution, than to the moderate measures which were called in to combat the symptoms of its last stage.

A boy, (Case 168th,) of 7 years of age, having a large head with rather a contracted chest, and betraying considerable aversion to mental exercise, became exceedingly irritable, sick at stomach, and complained of constant pain at the fore part of his head. By and by he began to dislike the light, he grew drowsy, had strabismus of the right eye, and was occasionally incoherent. When it became obvious that his brain was disordered, his mother recollected that of late he disliked to hold his head low, or do any thing which required stooping. After sinking under these symptoms he was examined, and the sutures gave way a little on the scull being raised. The veins of the arachnoid were distended, the convolutions of the brain were flattened, and when an incision was made into the brain at the usual depth, to remove the top of the hemisphere, the lateral ventricle was opened and a quantity of clear fluid escaped. Not less than from six to eight ounces of serum occupied these cavities. Several spots of ecchymosis were discovered in different parts of the brain, but more especially in the roof of the posterior extremity of the left ventricle, where the cerebral tissue was much softened. This softening, however, was confined to the medullary part; as the cortical covering was unchanged. Several tubercular formations were discovered in the pleura, lungs, omentum, and peritoneum.

An active child, 10 years old, (Case 18th,) began to complain of indistinct and double vision, of pain in the temples, drowsiness and cerebral oppression. These symptoms were followed by squinting, listlessness, vacancy of countenance and mental aberration. Her drowsiness increased, her articu-

lation faltered, and she walked with an indecisive step. Her head was shaved and cold was applied; eight ounces of blood were taken from the nape by cupping, and calomel was given every six hours with soda and comp. chalk powder. By the next day her head was easier, and she no longer saw double; but her urine was scanty and her pulse kept up at 108. Ten leeches were applied to the temples, an opening medicine was given, and the powders were repeated. On the day after the head was free from pain and oppression, but there was some obliquity of vision, and the pulse had risen to 120. The same number of leeches were again ordered, and the calomel was continued. Seven days after she had been subjected to this treatment her mouth grew tender, so that the mercury was omitted; but blisters were applied between the shoulders and behind the ears, the purgatives were persevered in, and in about a week afterwards the squinting had disappeared, and, excepting weakness which prevented her from walking firmly, no other vestige of complaint remained. Half a grain of calomel was notwithstanding continued twice daily.

The suddenness of the attack, viewed in connexion with the moderate degree of head-ache which was here complained of, throws an aspect of uncertainty over the real condition of the brain in this instance. The symptoms were purely hydrocephalic, and the treatment was mainly directed against effusion. But whether serum could have been extravasated in so short a period, and with such apparently trifling excitement, at least to an amount sufficient to produce such very great cerebral disturbance, is somewhat questionable. Mere congestion of the vessels of the head, as the Doctor very justly observes, will occasion hydrocephalic symptoms as certainly as effused lymph, or serum; and, although we feel no difficulty whatever in believing that serum extravasated within the head may be absorbed, notwithstanding our inability to discover many absorbents in its texture, yet, from the rapidity with which the disease in the present instance made its appearance, from the uniform good health of the patient previously, from the great relief always afforded by the removal of blood, from the continuance of strabismus after the mercury had produced its effects upon the system, and from the speedy disappearance of every symptom, it would not appear unreasonable to conclude that vascular turgescence, rather than strong inflammatory action on the one hand or serous effusion on the other, was the pathological state on which the symptoms in this case depended. How hydrocephalus may be accidentally developed in a predisposed habit by various sources of irritation, as injuries inflicted upon the head, tumours imbedded within the substance of the brain, teething and such causes, is well shewn by the following cases.

A girl, 7 years of age, (Case 15th,) of a scrophulous habit, injured the back of her head by falling on the pavement. She was at first stunned by the blow, ten days afterwards objects began to appear double, and six days before her death she was seized with convulsive fits, in which her speech was lost, which frequently recurred. Towards the end of her illness the voluntary muscles were especially affected by these convulsions. She rolled from one side of the bed to the other, she threw herself from the bottom of it to the top, and although her mind was quite undisturbed, these motions were so violent and so disobedient to control, that the greatest watchfulness

was necessary to obviate their consequences. On inspecting the head after death, the dura mater was turgid, the convolutions of the brain were smooth, its veins were large, but no fluid was effused upon it. The substance of the brain presented nothing unhealthy. The lateral ventricles contained 1 oz. and a half of clear serum, the smaller ventricles were also full, and a little fluid lay at the base of the skull.

A boy, (Case 70th,) five years and a half old, of an irritable temperament, was seized without any evident cause, when he was two years old, with convulsive fits, which gradually became more violent, and at length terminated his life. These fits were at first separated by considerable intervals, were attended with screaming and followed by sleep; but they afterwards became very frequent, and issued in palsy of both the upper and lower extremities. He swallowed with difficulty, but his appetite was good and his kidneys and alimentary canal discharged their functions with unimpaired vigour. Throughout his illness he seldom complained of his head; the last four months of his life he spent in a state of stupor, and he seemed to have lost his sight, but without strabismus, not long before his death. A younger sister of this child is now affected in a similar manner, and his grandmother on the mother's side has laboured for the last four or five years with hemiplegia of the left side. This little boy had been salivated and blistered along the spine, but little relief had followed any remedy save leeching. The dura mater was found thick, the arachnoid spongy, unusually red and closely lining its internal surface. These membranes were distended with fluid, which had by its pressure separated and contracted the convolutions of the brain. Many large veins seemed to lie on the surface of this fluid, and when it was removed the brain appeared small and covered with venous vascularity. The longitudinal and lateral sinuses were filled with a soft red coagulum, the pia mater was attached to the surface of the brain, and the cortical substance was so soft as to separate with ease from the subjacent medulla, which was proportionally firm. About one ounce of serum occupied each ventricle, a little was deposited at the base, and on cutting into the lower part of the middle lobe on the left side, a yellow tubercle of the size of a large pea was detected at the bottom of one of the convolutions. The cerebellum was pale, but the membranes were quite healthy. Whether there were any similar tubercular deposits in the other organs we are not informed; but it will scarcely be conceived that the extensive mischief, here done to the membranes and cineritious substance of the brain, had much more connexion with the small isolated tubercle which lay in the middle lobe, than it had with the production of the general symptoms. The following case, which probably owed many of its phenomena to dentition, bears a very striking similarity to that now given.

(Case 19th.) A little girl, who was only three years and nine months old at the period of her death, began to cut her teeth at the age of ten months, and during that process suffered severely. This first little illness once over, she gained strength rapidly and could run about at fifteen months; but before her second year had been completed, she was seized with convulsive fits which were at first referred to dentition. The intervals between the fits, however, were spent in peevishness, her limbs gradually became stiff and rigidly extended, and her mind betrayed symptoms of approaching in-

firmity. At length, for an entire year before her death, she was so stiff as to be quite incapable of motion. The feet were stretched, the thumbs were drawn into the palms of the hands, deglutition became difficult, the bowels inactive, and vision, at first impaired was ultimately lost. By unremitting care she was kept alive in this state for some time; but after passing three very restless nights, she was attacked with convulsions, under the effects of which she rapidly sunk. In removing the skull the dura mater was wounded, and about five ounces of limpid fluid escaped; but whether it lay beneath or above the arachnoid it was impossible to ascertain. The membranes were generally healthy; the brain, when compared with the size of the cranium, appeared much contracted. On cutting into the cortical substance it was found thick and pulpy, but the medullary part was contracted, and so hard as to give to the finger when divided the sensation communicated to it by the knife on cutting cartilage.

"The hardness of the whole medullary portion was such, that by scraping with the handle of the scalpel, no impression whatever was made by a degree of force which would have scraped in pieces an ordinary brain, but the scalpel passed over the cut surface as it would over a membrane; towards the edges the hardness suddenly increased, so that there was a margin round the whole, more white and prominent than the rest. When a portion of the brain was pressed between the fingers it gave a very peculiar sensation; the cortical part yielded readily, and the convolutions of medullary matter were felt beneath like an irregular hard body; and by pouring a little water on the outside and gently rubbing, the whole cortical portion was removed, leaving the medullary convolutions exposed, quite firm, in ridges like the rugose mucous surface of the stomach in some animals; it was perfectly firm, allowing to be freely rubbed and washed. Some portions of the brain were rather harder than others, but all parts on being cut, gave the idea of a wax model rather than brain. The ventricles were moderately distended, and retained their open form, as if moulded in wax; the membrane lining them was thick, so that in a section it seemed as if they were lined with a semitransparent membrane, of a line or two in thickness. The plexus choroides natural.

The cerebellum was pallid, and the cortical portion soft; and when cut into, the corpus rhomboideum with the surrounding medullary matter was found completely softened, but round the outside the brain was nearly as hard as in the cerebrum, so that on scraping very gently with the handle of the scalpel, a cavity with pretty firm parietes was apparent."

45.

The nerves at the base of the brain, especially the optic nerves, cut like soft cartilage, were elastic and stood quite erect. The medulla oblongata and the small portion of spinal cord removed with it partook, though in a less degree, of the general hardness. The non-intermixture of paralysis in this case with the convulsive symptoms, Dr Addison, under whose care this patient had been placed, was inclined to ascribe to the external position of the effused fluid; and Dr. Bright thinks that this view receives corroboration from the softened condition of the cortical layer, and by a case afterwards detailed, which was characterized by convulsions without palsy, and in which examination after death discovered a coagulum of blood deposited in the cineritious substance of the brain. Still, however, it must be admitted that large quantities of serum have been found effused between the membranes, without having induced during life such tonic spasms, and in the 170th case already given, where the cortical texture of the brain was in

the most complete state of softening, in addition to its having had a quantity of fluid between its membranes, we find very general paralysis without any convulsions after the first stage. How far the very condensed and indurated condition of the medullary texture depended upon pressure of the surrounding fluid is an interesting question, the solution of which might shed some light upon phenomena at present too obscure to warrant any thing stronger than conjecture. The 26th, 27th, 28th, and 29th cases are so highly interesting, as to merit separate notice in the Periscope.

The space, which the Dr. allots for the treatment of acute hydrocephalus, is small; but in this, as in almost every other instance, he confines himself to a few general observations, leaving the reader, who looks for more minute detail, to trace it through the cases with which he so amply illustrates both its nature and management. As some degree of inflammatory action he observes, usually exists, it is upon the readiness with which this action is discovered and subdued, that our only hope of cure can be founded. He cautiously, however, warns against the adoption of extremes, and believing that mere irritation not unfrequently exerts a prominent influence even in the earliest stages of the disease, he reprobates the repetition of small bleedings upon the appearance of every trivial symptom, as calculated to depress the powers of life, more than the principle of the disease. In many such cases nourishment and gentle sedatives will be proper. He has seen five drops of laudanum, given three times daily to a child of two years old, extricate it out of most alarming symptoms; but as a general rule he would prefer commencing with a smaller dose, and regulate the quantity according to the effects produced.

We believe it is always a difficult diagnosis to distinguish severe irritation from mild inflammatory action; but in diseases of the brain the great and many peculiarities of the texture affected render this difficulty ten-fold greater. The source of sensibility is itself the seat of the disease, and inflammatory action may be masked by symptoms of the most opposite character, just as it is chronic or acute, in the first or last stage of its progress, in a sanguine, scrofulous, weak or robust habit. The line, therefore, which separates what we call simple irritation from slight inflammation of the brain, probably exists in every case but is certainly seen, we apprehend, in few. These conditions pass and repass so insensibly into each other, and are so frequently combined, that they are reciprocally each other's effect and cause, and any therapeutic principles, which are to be based and directed upon a distinction so fluctuating, require to be adopted with great caution and carried into operation with enlightened watchfulness. But, as we shall have another opportunity, in the course of our review, to recur to this subject, we go on with our author to observe that, in addition to such cases as depend upon inflammation and irritation separate or combined, there are others in which congestion appears to be the morbid state which is productive of distress. This congestion may depend upon some original disproportion between the activity of the arterial and venous systems or upon some local obstruction; and our treatment must be regulated accordingly. Where inflammation exists, general and local bleeding and the continued application of cold are necessary. Where irritation prevails, depletion must be more sparingly, if at all employed. And in congestive hydrocephalus

blisters to the nape, cold dash occasionally to the scalp, and cupping on the temples, if the strength permit it, will be proper. The following observations on the use and action of mercury are well worthy of attention.

"The employment of mercurials in hydrocephalus has long and justly been considered of the utmost importance; but I am persuaded that the mode in which they have been used, and the object which has been proposed by their administration, have both been often erroneous. Calomel has usually been given in frequent doses, with a view of acting upon the liver, and producing repeated green evacuations; and this by some has been considered the proof that the calomel is acting favourably, whereas by others, when the green stools have appeared, they have been assumed as the proof that more calomel was required to clear away the vitiated bile. The fact seems to be, that such stools are produced by the action of the calomel; and as far as can be inferred from the symptoms of irritation with which their occurrence is usually accompanied, and from the appearance of the intestines of children who have died while calomel was producing this action on the liver and bowels, there is reason to believe that they have been a source of much irritation to the intestinal canal; for although it is often quite impossible in children during life to ascertain the exact cause of irritation upon which the symptoms depend, yet on dissection we find that the bowels are in an irregular state of contraction, and the masses of green feculent matter are distributed amidst the unequal contractions in such a way as to show plainly that they have been a source of irritation, and not unfrequently numerous portions of the intestines have been found in a state of intus-susception. To those who are acquainted with the influence which irritation of the mucous membrane exerts on the brain in the febrile attacks even of adults, it will be quite unnecessary to urge the probable effect of such irritation on the delicate nervous system of children in whom the brain is already rendered acutely sensible by disease: and by those who have witnessed the convulsions of children caused by griping, it will also be allowed that irritation of the muscular fibres may exert a powerful influence; and I shall have hereafter an opportunity of showing that inflammation of the external or peritoneal coat is likewise capable of producing intense cerebral irritation.

In the administration of calomel, then, it is a great object to produce as little irritation as possible. Mercury acts in this disease on different principles: in the commencement it is the most powerful and effectual means we possess of reducing the inflammatory action set up in the membranes of the brain, thus preventing the effusion of serum; and in the more advanced stages it may assist in producing absorption. It will likewise act on the secretion of the liver, and either by itself or in combination, assist in removing any feculent matter which might prove the casual source of irritation. If the calomel is suspected of irritating the bowels, no more rational proceeding can be adopted than to combine with it an opiate; as we always do in adults when we give it with a view of producing a favourable change in the vascular action of inflamed membranes: it is true that the use of opium in children so tender as those who are frequently the subject of hydrocephalus is not without its hazard; but this may be obviated by caution; and in so fatal and unmanageable a disease something should be risked if a great good is to be hoped. One thing is always to be borne in mind in our treatment of this disease, that, while a due regard to the delicacy of the frame on which we are acting should inculcate prudence in the use of depletion, and caution in the administration of such remedies as may induce excessive irritation; the recollection of the extraordinary recoveries which all have witnessed, after every rational ground of hope seemed to have vanished, should always prompt us to assiduous perseverance in the use of remedies as long as life remains." 74.

Dr. Bright has found it convenient to treat of chronic hydrocephalus in that section of his work, which is appropriated to the effects of pressure

upon the brain; but we prefer noticing this subject in the present place from our belief that, if there really be any meaning in the separation of this malady into chronic and acute varieties, the most material point in which they differ is, not the nature, but degree of action on which both depend. In acute hydrocephalus the symptoms are more severe, the action is more phlogistic, the disease is more rapid, and there is less time, while there are more indications, for treatment. In the chronic form the vascular excitement is moderate, the course of the disease is tedious, the constitution sympathises slowly, and active measures are seldom indicated, and more seldom borne. Still, however, if the term hydrocephalus be continued to express this morbid action, which is common to both the acute and chronic forms, these varieties cannot be considered as essentially differing; nor can the one form be combated by remedies totally inadmissible in the management of the other. From some modifying cause, which is not easily ascertained, the action, which precedes effusion in the chronic form, is so sub-acute and so insidious that it often deluges the brain, distorts the sutures, and distends the skull, without being betrayed by any unusual activity of pulse, acuteness of pain, or cerebral disturbance. The water either accumulates so slowly as to diminish the effects of pressure by their gradual development; or there is an unnatural passiveness of sensibility, upon which ordinary impressions fail to operate their ordinary effects. The brain has been often known, in the last stage of this disease, to bear, without manifesting serious symptoms of disturbance, a degree of pressure which was equal to separate the sutures and forcibly expel the fluid for which there was no longer room within the cavity of the skull. And where the tendency to effusion has ceased before the closing of the fontanelles and sutures, patients live many years in tolerable health, although during all that time the brain is subjected to the pressure of many pounds of fluid. When, however, the disproportion between the exhaling and absorbent functions has become too great to have its injurious influence counteracted by expansion of the head, excruciating pains, convulsions, paralysis and insensibility rapidly succeed, unless means are found to extricate the brain from such inordinate and increasing pressure. The following case will forcibly illustrate how long life may be protracted and mental function preserved under the constant operation of cerebral pressure.

A man, aged 29, (Case 205th,) who had laboured under chronic hydrocephalus from childhood, was admitted on the 1st of December, 1824, into Guy's Hospital. When born his head was very little larger than natural, but it had a pulpy feel, and was apparently almost destitute of bone. A fortnight after birth, however, it began to enlarge, and continued to do so for five years; after which it made little if any progress till the period of the patient's death. While a child his health had been good; when about three years old he had frequent attacks of epistaxis; at six, when he went to school, he was able to walk alone upon a level surface, and although he could soon read well and write tolerably, his writing was discontinued in consequence of head-ache, which was occasioned by the act of stooping. His appetite was ravenous, but he was weak and shook as he walked, and when a candle was held behind his head, his cranium appeared transparent

until he reached his 14th year. Fits of an epileptic nature came on when he was 23; the bones of his head closed when he was 27, since which he had shooting pain in the vertex; and in the Summer of 1823 an abscess formed in his ear, which relieved his head. When admitted into hospital he appeared in tolerable health, his countenance was not wanting in intelligence, he was near-sighted, his other senses were acute, the faculties of his mind were possessed of tolerable energy, his passions were irritable, he was fond of society but had no sexual desires, his head ached occasionally, when he stooped it became giddy, and when he moved violently he complained of a sharp pain in his forehead. His voice was hoarse, his bowels were costive, and he was unable to lie on his right side. A few weeks after admission he caught cold, febrile symptoms appeared, he lost his appetite, diarrhœa came on, and he died on the 24th of February, 1825. On dissection the upper part of the cranium was found occupied with a clear fluid, which was contained only within the dura mater, and the brain lay flattened and depressed at the base of the skull.

"What we saw looking like the flattened superior surfaces of the two hemispheres, was in fact the two lateral surfaces, which in health are opposed to each other through the centre of the brain; these had been separated and thrown back by the pressure of the fluid which, having first accumulated in the lateral ventricles, had forced a preternatural opening on one side of the corpus callosum, which, together with the whole fornix, had been nearly obliterated; and as the fluid increased, the hemispheres were gradually brought down to the base of the skull. The right hemisphere was quite flat, but the left was raised into a point at the side of the skull. About one pint of fluid was found in the ventricles, and probably, six or seven pints externally; for when the skull was completely freed from its contents, both solid and fluid, it would hold ten pints of water. The ventricles were so much disfigured by the fluid within, as well as by the peculiar position the brain had assumed, that it was with difficulty the various parts were discovered; to add to which difficulty,—as it was thought advisable to procure drawings of the appearances,—two or three days elapsed before we could pursue the dissection more particularly, and then many of the finer parts were rendered indistinct by exposure. The cerebellum was flattened and vascular." 433.

The longest diameter of the skull measured 32 inches and one quarter; the distance between the articulations of the lower jaws over the head was 21 inches; from the root of the nose to the posterior margin of the foramen magnum the space was 23 inches and three-eighths; the antero-posterior diameter was 10, and the transverse diameter 9 inches. The skull was very thin, but ossified; the interior surface of its thickened portions had a worm-eaten appearance, and between the regular bones there were ossa triquetra of various size and form, united by sutures.

In the 202d case an instance of chronic hydrocephalus at birth is given by Mr. Hargraves of Tunbridge Wells. Mr. H. had been called in to attend the confinement of a woman, who had been under a midwife's care for three days. He found a portion of the scalp protruding at the os-externum, and by carrying his finger up into the pelvis he discovered a rupture in the interior surface of the uterus, where it is connected with the bladder, upwards of four inches in length. Finding it necessary to deliver the woman, by assistance, he punctured the head and discharged from it three or four

pints of fluid; after which no further interference was found necessary to terminate the labour. The child appeared perfect in every part, save the back and head; it was unusually large, and seemed to have been dead twelve or fourteen hours. Dissection ascertained that the perforator had gone through the scalp only, that the scalp was separated from the head to a great extent; that a good deal of the fluid which escaped was exterior to the cranium, and that the brain was natural both in size and structure.

In a letter to Dr. Bright, Dr. Bostock has given to the world some chemical observations on the fluid generated in hydrocephalic disease, from which it appears to consist, in the thousand parts, of water 982·6, of albumen 6·, of muriate of soda 7·, of soda 1·4, of urea and osmazone 3·, and a trace of sulphuric acid, lime, and potash. As the presence of urea has not, we believe, been pointed out by any previous analysis, it may be well to give in his own words the plan by which it was obtained.

"After digesting the residuum (says Dr. Bostock,) procured by evaporating the entire fluid in successive portions of tepid water, evaporating the solution thus obtained, treating the residuum with alcohol, and evaporating the alcohol, a second residuum was procured, which I describe as 'deliquescent'; by a gentle heat it was reduced to a semitransparent substance, partially brittle and partially viscid, exhibiting somewhat of a crystalline structure, but no distinct form could be perceived. It had a pungent taste: a drop of nitric acid added to a portion of it produced considerable effervescence, and there was an appearance like the pearly scales of the nitrate of urea. A quantity of nitric acid, diluted with an equal bulk of water, was added to the residuum; there was considerable action; heated over a lamp the whole was dissolved; with extrication of nitrous vapour; I did not perceive any nitrous gas. Set by to cool, after it had been gently heated, so as to diminish the whole by about one-third, a quantity of crystalline scales appeared round the edges. The next morning the whole was liquid, having attracted moisture from the atmosphere. It was now gently heated to dryness over the lamp; the scaly crystalline mass again formed; I should not have known it from nitrate of urea. By testing it with the solution of muriate of lime, it was found not to contain oxalic acid." 441.

Some of the peculiarities, which we have noticed in the nature of this chronic form of hydrocephalus, and others of an equally peculiar character, have rendered its treatment very difficult. Some regarding it as purely a disease depending on debility, have confined their curative indications to strengthening the general constitution, exciting the absorbents, or treating it entirely as a mere dropsical affection. Mercurials have been tried by one party, cathartics by another, blisters, issues and setons by a third, diuretics and tonics by a fourth, while others, disappointed by all these plans, have sought for relief from surgical assistance. From the trials already made it is quite certain that puncturing the head may be repeatedly performed without producing death, and the issue of some of them has even been encouraging. In 1778, Dr. Remmett, of Plymouth, operated on a child only two months old. The head was punctured five times in the short space of four weeks, and no less than eighty ounces of fluid were drawn off. The child, however, died 17 days after the last operation, and the whole cavity of the cranium was found full of a pellucid fluid, of which above two quarts were collected. In 1817, Dr. Vase of Liverpool, punctured a hydrocephalic head four times, and drew off 32 ounces of fluid; but, although

great relief followed the operation, the patient ultimately sunk. Mr. Calaway has since been equally unsuccessful at Guy's Hospital; and perhaps the cases of Dr. Conquest, which have been lately laid before the public, are the most favourable to this operation which we yet possess. Dr. Conquest has operated repeatedly, and in at least two instances with apparent success. At the first operation upon one of his patients 12 ounces of fluid were withdrawn, and at the second 18 ounces. The head has since closed, and the child is stated to be apparently well, although it had been previously much afflicted with convulsive fits. We cannot refrain from expressing ourselves considerably sceptical on the value of this operation. It may, no doubt, give temporary relief in some instances, and may prolong for a few months, or if you will years, a miserable existence; but we strongly apprehend that the state of brain, accompanying such extensive effusion as requires tapping, holds out but little prospect of ultimate success to any form of treatment. Dr. Bright, however, is rather favourable to the operation; and as it can always be easily employed after every other plan of cure has been tried and failed, it is a *dernier resort* which may foster hope without diminishing in the least our other chances of recovery.

"The apparent success which has attended one or two cases, holds out a slight encouragement to a more extensive trial of this most doubtful remedy. There is no doubt that many cases will fail; for in some the tendency to pour out fluid continues unabated, and between each successive operation the head rapidly increases: but if, fortunately, as sometimes in the operation of paracentesis of the abdomen, the tendency to accumulation should have ceased, either from the effects of remedies, or from some local change depending on the abstraction of the fluid, and if the cerebral disorganization should not be totally irreparable, a cure may be effected: still, however, it remains to be proved to what extent such cures will be satisfactory as to the future mental condition of the child: and probably a very small proportion will even apparently succeed." 428.

Having now traced the effects of disease from the skin to the scalp, from the scalp to the skull, and from the skull to the membranes, the effects of inflammatory and other morbid actions upon the texture of the brain itself occupy the attention of the Doctor, and under the two heads of abscess and ulceration he cites a few interesting cases. Had opportunity allowed, it would have made his series more methodical and complete, if the Doctor had given us some instances of phrenitis before the inflammation had terminated in either abscess, or ulceration. He treats largely on softening of the brain, but not as an effect of inflammatory action; and he is copious in his illustrations of the results of pressure from turgescence and effusion. But that intense vascularity, which the brain presents in the early stages of inflammation, he has not exemplified by any well-marked cases. Two very distinct cases of superficial ulceration of the brain, three instances of encysted abscess, and two examples of extensive cerebral destruction somewhat analogous to sloughing abscess in other textures, are recorded. The matter formed in cerebral abscesses is very different from the ordinary purulent fluid, which is elsewhere secreted in such instances. Indeed, the author has been induced to conclude that "from some peculiarity in the structure of the brain true pus is scarcely ever formed, unless when some

tubercular matter has been previously deposited, or a cyst formed; in which cases even it puts on a tenacious mucous character."

(Case 72d.) A man of advanced age had laboured for some time under dyspnœa, and other symptoms generally attendant on hydrothorax; and when admitted into hospital he was in a state of drowsy stupidity, he passed his evacuations involuntarily, and was unable to leave his bed. Blisters were applied to the chest, and some diuretics were given. His mind was very much confused, he was extremely noisy during night, and towards the close of his illness his speech became thick and indistinct, and there was obvious loss of power in the right cheek. A thin layer of blood was effused upon the posterior part of the left and the anterior surface of the right hemisphere. This layer varied in thickness from that of paper to a shilling, and was so attached to the under surface of the dura mater as to make it doubtful, when peeled off, whether it were enclosed within a distinct membrane. The under surface of the anterior lobes of the brain contained three or four patches of irregular ulceration, about as broad as a shilling, and the eighth of an inch in depth. The vessels of the base contained a few cartilaginous deposits; a curious black, carbonaceous-looking matter lay on the surface of the medulla oblongata, which seemed to have been the remains of a former effusion of blood under the arachnoid. The right lung was so diseased as scarcely to contain respirable texture. The left lung was similarly, but less affected. The left ventricle of the heart was hypertrophied, the aorta dilated and diseased, with cartilaginous deposits along its whole course. Several pints of yellow serum lay in the abdomen; the spleen was very small; the kidneys were contracted, externally scabrous and internally mottled with the white deposit. A double hydrocele in scrotum.

The paralytic symptoms in this case appeared only at the very close of life, and were too trifling to lead to the suspicion that much disease existed within the head. The Doctor had all along ascribed the cerebral disturbance to the difficult transit of the blood through the lungs, and the disease was altogether too complicated to construct any precise diagnosis upon its symptoms. In the second case of ulceration, the effects of this peculiar form of disease upon the general character of the affection are also very obscure, if at all perceptible.

(Case 71st.) A healthy man, nearly 60 years of age, scraped his left temple and eye-brow by a fall. Simple dressings removed the urgent symptoms, and it was only after having travelled in wet clothes three weeks afterwards, that any severe signs of cerebral disturbance were exhibited. He was bled from the arm, leeches on the left temple, and took remedies for the alleviation of his febrile symptoms. The injured part becoming puffy it was freely cut down upon, and poultices with fomentations were assiduously employed—although this treatment obtained immediate, it did not furnish permanent relief; he was very delirious during night, erysipelas came over the affected part, and he ultimately sunk. The bone was denuded to a considerable extent, and around the denuded part was very brittle. Opposite the separated portion of pericranium the dura mater was still attached, but a deposit of organized membrane, as thick as the dura mater, had formed between it and the external surface of the skull. The

surface of the brain was covered with a serous effusion, and on the edge of the anterior lobe of the left hemisphere, close to the falx, was an oval depressed ulcer of the size of half a hazel-nut, containing a small quantity of white puriform fluid.

The first two cases of encysted abscess within the brain which are detailed are extremely similar, and illustrate in a light the most forcible the insidiousness and perplexity of all cerebral symptoms. In the 73d case there was abundance of proof that the head was seriously disordered; but whether the cause of disorder lay in the membranes, or medullary structure; whether its nature was effusion, suppuration, abscess, or mere inflammation—it was, perhaps, impossible to decide. The author believed that effusion was going on as the result of preceding inflammation, and accordingly he carried the use of mercury to the extent of affecting the mouth, but no relief was obtained; and the post mortem appearances sufficiently explain the cause.

A young man had been afflicted with pain in head for three weeks before his admission into hospital. It frequently made him sick, he sighed often, rolled his head about, and cast up his eyes; but was unable to point to any particular part of the head as its principal seat. He had been bled from the arm, and then cupped on the nape, had cold applied to the scalp, and took hyd. c. creta every eight hours. He admitted that this treatment had somewhat diminished his suffering; but that his headach was still considerable. His nape was again cupped and blistered, one grain of calomel was given every six hours, and a saline mixture. On the next day the pain became intermittent, he still rolled his head, was occasionally delirious, and said that he was sometimes nearly blind. The pulse, which had at first been 84, now fell 20 beats, but the sighing was as frequent as before. Sixteen leeches were placed on the temples, and the other medicines were continued; but, although his mouth was becoming sore, he was evidently sinking, and the mercury was displaced by a dram of the tincture of *Serpentaria* every four hours. Coma gradually came on, he lay with his head bent down and his knees up, and in two days afterwards he died. The dura mater was vascular, the falsiform process was wanting, except in the posterior part, the arachnoid was very dry, the cerebral convolutions on the centre of the middle lobe were flattened, the two hemispheres adhered where the falsiform process was deficient, the substance of the brain was healthy, the ventricles contained several drachms of colourless fluid. On raising the middle lobe off its site on the petrous portion of the temporal bone, a large part of it was found discoloured and in a state of apparent suppuration. The dura mater, corresponding to this disease, was slightly discoloured, thickened and at one part detached from the bone, where a little bloody coagulum lay between them.

“Cutting into the diseased portion of the brain, it was obvious that the external portion was soft and discoloured, but separated easily from a cyst beneath it, which was of the size of a hen’s egg, and contained a quantity of greenish yellow pus; some of the more fluid part escaping, but the greater part being of a thick and rather ropy consistence remained, when the cyst was fairly divided through the centre; and part of it was attached in flakes to the cyst, so as to require to be forcibly scraped by the handle of the scalpel, appearing to be the inner surface of the cyst itself in a state of softening. The cyst was as thick and nearly as tough as a piece of wash-leather; but owing to the time

necessary to execute the drawings, it was nearly three days after the removal of the cyst before I could carefully examine its structure; at that time in many parts no vessels could be discovered, but towards its upper part many vessels of considerable size might be traced, the trunks of which seemed to run along the internal surface, and their fine extreme division to float in the curdled pus with which the cyst was lined." 152.

The 74th case is so very similar to the one now recorded that it will be quite sufficient to refer to it. In the 75th case a young lady went through an attack of continued fever without any marked local affection, and during convalescence a discharge of blood and pus took place from the nostrils; after which cerebral symptoms appeared, and she died with evident indications of pressure on the brain. A table-spoonful of thickened pus was found between the dura mater and scull-cap, opposite the left tuberosity of the os frontis. The lining of both frontal sinuses was extensively ulcerated; and from the left an opening sufficient to admit a crow-quill led into the cavity of the cranium. The left hemisphere was so flattened as to occupy the greater part of the corpus callosum, and when cut into its anterior lobe discovered a cyst, which contained three ounces of pus and mucus. The father of this young lady, it appears, had a similar discharge from the nose, which was removed by fumigations with cinnabar.

Not only are symptoms indicative of cerebral disease peculiarly equivocal, as respects the nature of the action which exists; but they are also a most uncertain measure of the extent of danger which this action causes. We have already seen many striking illustrations of the accuracy of this fact, and the two cases which follow are highly interesting with the same view.

(Case 77th.) A child, 20 months old, fell with a cup in its hand, and an angular portion of the broken cup penetrated the posterior part of the frontal bone on the right side.* The greater part of the fragment was extracted with some difficulty, and some hæmorrhage followed. A poultice was applied and minute pieces of the cup came away in the discharge. In about a week after hernia of the brain came on. Lime water, simple dressing and pressure were employed, and the wound for some time improved; but pulsation at length appeared, fever ensued, the granulations grew glassy, the discharge became unhealthy, the appetite declined, convulsions came on and death followed. The edges of the external wound adhered to the pericranium, which for some extent was separated from the bone. In removing the scull, a quantity of purulent matter exuded from the herniated portion of brain, which was contained in a cyst. The right hemisphere was externally much unfolded, and in the right part of the centrum ovale an abscess, which freely communicated with the right lateral ventricle, occupied a large space in the anterior and middle portions of the brain. From 10 to 12 ounces of sero-purulent fluid were contained in this abscess and ventricle, and a piece of bone, which the cup had thrust before it, was found in the anterior end of the abscess.

A middle-aged woman (Case 78th,) was confined with her second child on the 27th of January; on the 4th of February a tertian ague came on; and on the 11th she was seized with an epileptic fit. She was bled to 12

ounces and the blood was buffed. A second fit occurred, but in a more moderate form. Her head was shaved and kept cold, rest was enjoined, she got four grains of blue pill and some tartar-emetic wine every four hours, and she was cupped to eighteen ounces on the nape. Pain was now complained of in the muscles of the right side of head, and she kept her hand very generally on her left ear. On the 12th, the left angle of the mouth was somewhat retracted, the countenance was more vacant, and the temperature of the right side of head was evidently inordinate. Leeches were applied to the temples, and a sedative pill, which had been given the night before, was repeated. On the 13th there was a little more cerebral disturbance, and the left arm seemed weaker than the right. Fifteen leeches and a sinapism were ordered, together with a blister to the nape. On the 14th and 15th she was better, and during the 16th and 17th she was very much improved. On the 18th she passed a restless night, and complained of a feeling of distension on the right side of head, attended with uneasiness; and on the 19th convulsions and perfect unconsciousness came on, which sinapisms to the feet, bleeding from the arm and other measures were unable to remove. The dura mater was thickened and injected. The left hemisphere was rather vascular, but in other respects healthy. The surface of the right hemisphere was still more vascular, and its substance was almost wholly occupied by an abscess, which opened upon the surface by a hole, surrounded with coagulable lymph, opposite the meatus auditorius externus. The cerebellum was quite healthy. As to the origin of this extensive disease no cause could be conjectured, excepting a slight blow received on the head during the previous Autumn, which was productive of some temporary pain, but was insufficient to attract much notice even at the time of its occurrence.

(Case 80th.) A negro had been attacked while at work two days before his admission into hospital with palsy of the right side. Four ounces of blood were first drawn from the nape by cupping, it was then blistered, cold was applied to the scalp, and some purgative medicine was ordered; but three weeks afterwards he died, without having experienced any amendment. A large quantity of serum was deposited under the arachnoid, which was easily detached from the surface of the brain, except over the anterior and lateral parts of the left hemisphere; where, on tearing it off, some medullary matter in a completely softened state came away with it, and a quantity of cream-like fluid ran from the breach which had been thus made into the interior of the brain, where for three inches square it was softened into a state, which the Doctor was inclined to consider analagous to suppuration. In most parts the softened matter wore a yellowish colour, and in some places the vascularity of the cerebral substance was much increased. In one small spot in the posterior lobe the same morbid tendency was betrayed.

The morbid anatomy of this case throws but little light upon the unexpected commencement and rapid course of the disease. When paralysis took place the man was engaged, in apparent health, by his ordinary occupations, and from the moment of its establishment until the close of life, there was no change of symptoms which could hold out any prospect of recovery.

"The question then is, what was the change which gave rise to the sudden aggravation of symptoms? It is certainly possible that at this moment a vessel gave way, and blood was effused into the substance of the brain, which was afterwards so far absorbed as to leave only a yellow appearance: this, however, is very improbable; for though we do not know the exact time necessary to absorb blood in the brain, still we know that frequently twenty-four days is quite insufficient for the purpose; and long after that time we find more obvious traces remaining than were found in this case, when if any effusion at all took place, it must have been extensive.—Another hypothesis is, that the sudden mischief might have occurred when the softening arrived at some particular part, possibly when it reached the corpus striatum. And another explanation which might account for the symptoms of local pressure on the brain would be, that the pressure was occasioned by an accumulation of the serum found beneath the arachnoid over the softened portion; or by the simple falling in of that portion forming the depression observed in its surface. It is not improbable that whenever a part of the substance of the brain is brought into a fluid state, or even an approach to that condition, it makes an undue pressure on the surrounding cerebral matter; and in this way may be produced many of the symptoms observed in affections of this kind." 173.

The last case is placed among those, which are intended to illustrate the effects of cerebral inflammation; but the peculiarity of its onset might have entitled it to rank among such instances of cerebral disease as depend on *Pressure*, and the morbid appearances, which it exhibited upon dissection, might appropriate to it a place among illustrations of *Softening of the brain*. The symptoms most generally present in this last affection differ but little from those which arise from pressure; but a softened condition of the brain may exist in many forms, originate in different states of disease, and be attended by a great variety of symptoms. In the first case, for example, which we shall extract, the symptoms came on as suddenly and the palsy was as complete as though blood had been effused in large quantity upon the surface of the brain. In the 82d case the attack was sudden but no palsy followed, and partial recovery afterwards took place. In the 81st and 82d cases, Dr. B. believes that softening of the brain arose from defective circulation; in the 65th case from inflammation; and in the 84th case from simple congestion; while instances are not unfrequent where the whole brain is generally softened in its texture, in consequence of great constitutional debility, or lengthened general disease.

The inducing causes being thus so various, our curative measures should be accordingly modified; but it is more than difficult in many instances to ascertain, either the precise morbid condition upon which the symptoms depend, or the precise exciting cause which gives rise to this condition.

(Case 81st.) A man, aged 63, while sitting at breakfast was suddenly seized with a loss of consciousness, and upon coming to his senses ten minutes after, found that he had been attacked by complete hemiplegia of the right side, depriving him of all voluntary motion and sensation both in the upper and lower extremities. His mind was undisturbed, he could protrude his tongue, and his face was but slightly affected; but he swallowed with some impediment, and spoke with great indistinctness. For several years he had an open ulcer in the leg, which had healed up six months before his attack; since which his bowels were extremely irritable, and the diarrhœa, which this irritability occasioned, declined only on the sore becoming worse.

Nothing, which was done for him, had any effect upon his disease. He was occasionally delirious, his pulse was very intermittent, and becoming less sensible, whether from debility or increased pressure was uncertain, he gradually sunk. Beneath the arachnoid serum was effused in large quantity separating the convolutions from each other, and giving them a peculiarly rounded appearance by its lateral pressure. On the right side this appearance of the convolutions was most marked. The substance of the right hemisphere was natural, but on slicing the left at different depths the cortical substance appeared of a light fawn colour, very soft, and almost broken down into the general texture of the brain; while the medullary portion was curd-like, and appeared in little holes as if absorption had been rapidly at work. This disorganizing process seemed to begin near the cortex, and to proceed inwards. The ventricles were distended with water. A small portion of the centre of the left hemisphere of the cerebellum was also softened, and of a yellow fawn colour. The vessels at the base were ossified; but those of the pia mater and surface of the brain were not unnatural.

(Case 83d.) A young man, who had been from infancy subject to head-ach and giddiness, and who had had in China a paralytic attack was placed under the Doctor's care in consequence of pain in the forehead, attended with dulness of sight and hearing. On laughing the mouth was drawn to the right side, and on attempting to whistle he was unable to close his lips on the left side. There was no fixed palsy of either side, but a general debility and loss of motive power. When he walked he staggered, and when he stood a few minutes on his legs he trembled. Tartar-emetical ointment was rubbed in upon his neck and shoulders, and the bowels were kept open with active aperients. A fortnight afterwards his head-ach had increased, he was often so giddy as to require to be led, and his countenance was inattentive and vacant. Leeches were repeatedly applied to his forehead, cold to his head, and a blister to his nape. Yet by the end of the following week he was comatose, had lost the power of his right hand, and constantly lay in whatever position he was placed. During the next fortnight he expired. The left hemisphere was covered with pia mater so highly vascular as to give to the whole a deep red colour; but there was no effusion. If the presence of a little serum, which lay beneath the arachnoid, be excepted, the right hemisphere appeared healthy. Two softened portions of brain—one in the anterior, the other in the posterior lobe—were discovered in the left hemisphere. The smaller portion was separated from the healthy brain by a distinct line, which seemed to be firmer than the general structure; the larger mass was less defined and involved both the cineritious and medullary textures. During the two days, which were occupied in making drawings of these parts, the different effects of the air upon the sound and diseased brain were so remarkable, that while the healthy part retained its firmness the softened portion became semi-fluid.

(Case 84th.) A man, 73 years of age, fell down in a fit of apoplexy on hearing that his partner had absconded, and reduced him from a state of affluence to penury. About ten months afterwards he had a second fit as severe as the first, after which he became unable to engage in any occupation, and about three quarters of a year afterwards he was attacked a third time, while endeavouring to get from his bed to his chair, for which

he was liberally bled from the temporal artery. After this he became comatose, was occasionally delirious, lost much of the power of his right hand and lower extremities, which could not be extended without pain, and he died eight months afterwards. The inner surface of the dura mater was very soft, a quantity of serum lay between the pia mater and the arachnoid, the vessels of the pia mater were much injected, the medullary substance of the brain was brown-coloured, but firm. The ventricles were distended with serum, and lined with a few finely-injected vessels. At the base of the brain there was likewise much fluid. In each of the posterior lobes of the brain there was a spot of softening, in which both the cortical and medullary textures were involved. The centre of this softened mass was the least firm, but although its consistence grew harder as it extended towards the surface, there was no boundary line to separate the diseased from the healthy parts.

"In this case there is great reason to believe that no material vessel was at any time ruptured, but that the successive apoplectic fits depended rather on a state of congestion in the vessels generally, producing slight laceration of the fine branches, chiefly at the union of the cineritious and medullary matter, which probably never completely regained their natural condition after the first attack. At the same time no decided paralysis was the result of the first seizure; and though from time to time there was evidence of the return of a state of vascular fulness, marked by the temporary loss of memory and the confused state of mind, yet even his mind was generally capable of active employment for above a year, when the recurrence of a similar attack more completely destroyed his power of exertion both mental and bodily, still without inducing fixed paralysis. By the third attack, which took place about six weeks previous to his death, it is probable that the more complete disorganization of the injured portions of the brain was effected; decided paralysis followed, confined to particular parts and chiefly to the nerves of motion; and during the last three or four days he became completely insensible and comatose, from the pressure of the serum which was accumulating in the ventricles and beneath the arachnoid. It may fairly admit of a question, whether in this last attack the disease did not assume an inflammatory character. The quick and sharp pulse, the furred tongue, and the hot skin, all appeared to indicate the existence of inflammation; and the pulpy state of the arachnoid lining the dura mater, and the vascularity of the pia mater, seemed to point to the same condition; independently of the serous effusion and of the softened state of the portion of brain at the junction of the cineritious and medullary substances, which might possibly be the result of congestion." 188.

In the 85th and last case of "ramollissement" of the brain, an athletic soldier, aged 40, who wore upon his head several marks of preceding injury; came into Guy's Hospital on the 21st of January, labouring under general muscular and nervous debility. His left leg and arm were weak, his walk was unsteady, he passed his urine involuntarily, and he betrayed several proofs of a confused and injured mind. During the previous year he had complained of pain in the forehead, and he had fallen repeatedly while walking in the streets. On the 25th a seton was inserted in his nape, he had five grains of blue pill at night, and a black draught in the morning; on the 30th ten leeches were applied to the temples; on the 6th of February one grain of the sulphate of zinc was given three times a day in addition to his other medicines; the sulphate of zinc was increased and continued until the 27th, when subcarbonate of iron was substituted in its room; quinine,

valerian, nux vomica, tincture of Spanish flies, blistering the nape, and electricity were successively tried on the 8th of July, without producing any serious alteration; and on the 23d he died in a state of such extreme helplessness, as to be unable to leave his bed or even swallow. The dura mater and arachnoid adhered in several parts, especially on the right side, so that they stripped off together; and over a considerable part the cineritious brain tore away with the membranes. There was decided serous effusion between all the convolutions, and the ventricles contained about an ounce of clear fluid. On the right side the corpus striatum was quite flattened and of a yellow colour. It was soft to the touch, and when cut into two-thirds of it were broken down, and presented a filamentous watery brown appearance. Both kidneys unhealthy, but the right very much diseased; the superior half being of a yellow white colour and containing two abscesses. His urine had been high-coloured, and when exposed to heat became quite white and flaky.

It must easily be seen by a review of the above cases, that great difficulty will be encountered in constructing a diagnosis of this cerebral affection from the symptoms by which it is attended. Its actual presence in, perhaps, any instance can only be suspected; and even our suspicions depend upon the caprice of so many accidental occurrences, that to be well founded requires, probably, as much good fortune as sound experience. That softening of the brain, which occurs in cases of old age and general debility, which approaches slowly and only terminates in dissolution when the general frame is exhausted, the Doctor has not considered it necessary to illustrate by any examples. To those, who are conversant with morbid anatomy, no state of the brain is more frequently occurring, or better known; but, as it is merely one out of many effects of constitutional decay, the patient stands in general little stronger chance of recovery after his disease has been clearly ascertained, than previously.

"With regard to the treatment of cases in which we are induced to suspect that the softened disorganization is taking place, it will of course vary according to the cause: as long as we are obliged to infer excessive action we must deplete, and use counter-irritation; but looking to the general condition of those who are the subjects of such disorganization, we should be inclined to prohibit active depleting remedies, as likely to diminish the powers of the system. Nor can we suppose that the mercurial action would produce any good effect. On the contrary, whatever is calculated to disturb the more healthy and natural actions may be expected to do harm, and probably the careful avoidance of every thing which can over-excite either the body or the mind, with the employment of gentle tonic remedies, both as medicine and as diet, and even as occupation and amusement, will be most effectual in delaying the mischief, or in supporting the frame under its gradual decline. To what period life may be prolonged, when a considerable extent of the substance of the brain is diseased, we have not the means of asserting; but that large portions of the brain may be lost with apparent impunity has been proved in many instances; and in some of the foregoing cases there is reason to believe that the mischief had existed several months, attended however with great functional derangement. Whether healthy brain be ever regenerated is very doubtful; but as to the power of Nature of repairing in some degree the injuries of the brain there can be no doubt; and there is reason to believe that parts of the substance which have been lacerated by blows or by apoplexy, and thus rendered useless, are frequently absorbed; but how far the powers of the system are sufficient for such an operation, where, as in the cases of Kennedy or Murrigde, spontaneous

change has taken place, remains a matter of speculative opinion; at all events, one of the best objects we can propose in the treatment, is to give force and vigour to those natural actions by which such reparations are effected." 196.

The Doctor's *Second Section* is devoted to the different kinds, causes, and effects of *Pressure* upon the brain. Under this head are considered pressure from simple vascular turgescence;—pressure from the effusion of serum between the membranes, or into the ventricles;—pressure from extravasated blood; and pressure from various other varieties of accident. A plethoric, robust and well-fed man is suddenly seized after dinner with giddiness, indistinctness of vision and intense pain in the head, followed by loss of consciousness and voluntary power. He is bled from the arm or temples to 20 ounces, and in an hour or two giddiness, pain, and every other symptom disappear. In this instance there was evidently nothing more than intense cerebral congestion; a larger quantity of blood in the vessels of the head than was compatible with the free performance of the sensorial functions. But this man, by persevering in his luxurious mode of life, is again attacked by a fit of confirmed apoplexy, from which he recovers slowly, and probably with the sacrifice of one or two palsied limbs. In this case we may suppose that the cerebral congestion had reached its most intense degree, and that the blood determined to the head, no longer to be contained within the bloated vessels of the brain, breaks through some of its natural channels, and not only overwhelms the nervous power for a time, but leaves serious and lasting vestiges of injury. Between these two states, which an ordinary eye may be able to distinguish, a third intervenes of more difficult diagnosis. A man instantly falls down, foams at the mouth, is violently convulsed, snores loudly, is quite insensible, and remains in this state for several hours; when, either after the use of the proper remedies, or without any kind of treatment, he gradually recovers; but feels languid and weak for months afterwards. Such cases are by no means rare, and it very generally happens that one such attack only prepares the way for others until the constitution is irreparably damaged. The features, by which such cases are distinguished, so correspond in many respects with those of epilepsy on the one hand, and of confirmed apoplexy from sanguineous effusion on the other, that the line of demarcation is not easily drawn, although such distinction is often of great practical importance.

(Case 87th.) A gentleman, aged 60, of an apoplectic habit, was attacked at the billiard table with giddiness and indistinct vision; some time after which he fell senseless and convulsed upon the ground. An hour afterwards he was bled to 16 ounces, and took ten grains of calomel, which for a time relieved him; but early next morning a second attack occurred, and the bleeding was repeated. At this time he lay rather senseless, but apparently asleep. When roused he answered questions and again fell off to sleep. No limb was palsied, but the mouth appeared somewhat drawn to one side, and his pupils were contracted. Ice was applied to the head, and a purging injection was ordered; twelve ounces of blood were drawn from the arm during the night, and strong purgatives were given to stimulate the bowels, upon which the injection had no effect. During the 24th he had a third attack, for which he was cupped, leeches, and blistered.

On the 25th he was better, although perfectly lethargic when left to himself. On the 26th his improvement continued. On the 27th and 28th his mind was occasionally hysterical, but on the 29th he was so much better that the Doctor's attendance was no longer necessary. A slight paralytic affection of the left hand remained, his left eye was slightly affected, the left angle of his mouth was just perceptibly drawn up, and he occasionally complained of shooting pains in the back of his head. He afterwards became the subject of a fresh attack, which was overcome by similar means, but which left an imbecile and desponding state of mind that several months were spent in dissipating. In such cases—

"The most difficult point to be decided, generally, is the extent to which depletion should be carried. The various circumstances of the individual, but more particularly his habit of body, will afford the most certain guide; and in most cases, in proportion as the epileptic character prevails in the attack, will the propriety of large depletion become the more questionable. That very urgent vascular congestion exists during paroxysms of this mixed character, there is scarcely room to doubt; but in general, direct depletion is to be considered only a temporary means of relief, calculated to remove the present danger from fatal over-distention of vessels and from rupture; but if frequently or largely repeated will often increase the irritability and the tendency to relapse. When the present danger has been removed, establishing a regular action in the large intestines, and the employment of a tonic regimen and diet are most likely to prevent the repetition of the attacks." 202.

It is well known that upon inspecting the brain after death occasioned by narcotic poisons, its vessels are generally found in a very loaded state, and that such treatment as tends to prevent or remove cerebral congestion, has often the happiest effects in cases where poisoning has been attempted. How far such congestion is the immediate cause of death in any instance—whether it should be regarded as the effect of a less visible but more influential morbid state, or as directly contributing to depress and disturb the sensorial functions—is less certainly made out.

(Case 88th.) A young woman, who had drunk a quantity of opium with the view of committing suicide, was brought into Guy's Hospital two hours after it had been swallowed. The stomach pump and stimulants were tried in vain, and she expired in about seventeen hours after the accident occurred.

The vessels of the head were generally and unusually loaded—the surface of the anterior part of the left hemisphere contained a patch of ecchymosis equal to a crown-piece in size;—the substance of the brain was filled with bleeding points;—there was no water in the ventricles. Except two or three ecchymosed spots, which were ascribed to the tube of the pump, the stomach was healthy. The large intestines contained a few appearances of inflammatory action.

The next three cases, 89, 90, 91, are from the pen of Mr. Walne, and show in the most striking and satisfactory manner the influence of cold, as an application to the head, in cases where excessive doses of laudanum have been taken. This remedy, we believe, was first brought formally into notice by Mr. Wray and Dr. Copland, and the efficacy which these gentlemen's approval of it declared it to possess, should have given it a more general claim upon the adoption of the faculty than it appears as yet to enjoy. It has been known since the days of Hannibal, when the grapes of Italy were

first tasted by his hungred Carthagenians, that pouring cold upon the body of a drunken man relieves him from his intoxication in a very short time ; and the action and effects of brandy upon the brain, when taken in excess, do not appear to be extremely different from those of the more concentrated and less palatable narcotic poisons.

(Case 91st.) A strong young man took upwards of an ounce of laudanum as he was retiring to rest, and in somewhat more than a quarter of an hour Mr. Walne saw him. The stomach-pump was introduced, and, after as much of the contents of the stomach was removed as possible an emetic was introduced but failed to operate. Cold water was now dashed over his head, and at each dash some signs of returning sensibility were elicited. In a little time he complained of being sick and vomited freely what had been thrown into his stomach. He occasionally relapsed into a state of stupor, but a fresh application of the dash was always sufficient to restore him again to sensibility. This treatment was continued between two and three hours, when he was rubbed dry and until his skin became quite warm. Headach was complained of for two or three days, but he perfectly recovered.

The pump in this instance strongly co-operated with the action of the cold, and in no instance should the water alone be trusted to. The pump may, however, be employed either after the narcotic has passed down into the intestines, or has brought the system under the full influence of its principle. In such cases emptying the stomach can do little good ; but still it should not be neglected.

(Case 89th.) A girl swallowed an ounce and a half of laudanum, and in twenty minutes she was in a state of complete insensibility. The pump was introduced, but very little fluid could be withdrawn ; and that did not seem to contain any of the tincture. Water was abundantly injected, but the smell of opium could not be detected in it when afterwards discharged. Mugs-full of cold water were now poured upon her head, and occasionally upon her face. Symptoms of returning sensibility followed each application, but whenever the affusion was discontinued for a few minutes the patient relapsed into her previous state. A small quantity of ammonia was poured into her stomach, but she retched repeatedly and brought part of it up. At the end of about four hours the whole surface was cold, the pupils were contracted to the utmost, the action of the heart was feeble, and she was much less excited by the dash. The cold affusion was now discontinued, she was placed in a warm bed and rubbed dry, while hot bricks were applied to her feet. The friction roused the heart and restored warmth, but she continued insensible, and in less than two hours afterwards her jaw fell, the pulse became hardly perceptible, the breathing was marked by mucous rattle, and there was every symptom of approaching dissolution, when Mr. Walne determined on injecting some brandy into the rectum. Four ounces were accordingly introduced, but they were soon rejected ; yet the pulse got up and the jaw returned to its natural position. Half an hour afterwards the same quantity was repeated with three quarters of a pint of gruel. This was retained and her pulse improved, she breathed freely, and she fell into a profound sleep, out of which she awoke so far recovered as to be no longer in a doubtful state.

This case is one of very considerable interest, for the favourable result of which Mr. Walne merits no small credit. It shews what good can be accomplished by the patient and industrious use of judicious means, even *after* there is little ground for hope to rest upon. The excitability of this girl had been evidently exhausted by the continued application of the cold dash for four hours; yet no one can for a moment doubt that, had not this application been made, she would not have survived one-third the time of its employment. The medicine had taken full possession of the system before medical assistance was obtained, and had evidently passed into the intestinal tube; so that by the continued stimulus of the dash the vital sensibility was preserved unextinguished until the narcotic began to lose its influence upon the brain, when the restorative power of the brandy completed the cure by re-establishing the nervous energy. The cold was at first indispensable to counteract the effects of the narcotic; and the brandy was as necessary to remove the debility, which had been occasioned by the conjoined operation of the narcotic and the cold.

Perhaps pulmonary affections are as frequently a cause of congestion within the head as any, which have yet been mentioned. In the 93d and 94th cases the bronchial membrane was seriously affected, attended by much dyspnoea and lividity of the countenance, and followed by incoherence and pain of head. The vessels of the brain were found turgid with blood, and the substance of this organ presented a mottled aspect, which chiefly depended on its increased vascularity. The 95th, 96th, and 97th cases indicate the operation of pulmonary emphysema upon the cerebral circulation. The principal symptoms were dyspnoea, great difficulty in walking to any distance, respiration generally inaudible by the stethoscope, with a clear and loud thoracic sound on percussion. The 96th case is especially interesting on account of its well-marked and characteristic nature; but space will not permit us to do more than thus refer it to the reader's notice. The 98th and 99th cases are from the practice of Mr. Walne, and are very distinct instances of the effects of pulmonary obstruction, accompanied by hooping-cough, upon the circulation within the head. In the 99th case, had the patient died of pure apoplexy, the brain could not have displayed more striking vestiges of that disease. The lungs were condensed, hepatized, and infiltrated. The conditions of the lungs which seem most calculated to induce the cerebral plethora, are—

“Condensation from the pressure of effused fluid;—changes in the bronchial membrane from chronic inflammation;—extensive emphysema of the lungs, whether the consequence of original weakness in the structure of those organs, or from violent exertion, or from chronic thickening of the bronchial tubes;—and sanguineous congestion generally dependent upon some obstruction to the free passage of blood through the heart;—and occasionally the changes consequent on Phthisis and Pneumonia. Many of the most distressing symptoms of bronchitis,—the intense headach, the wandering delirium, and the lethargic coma,—are undoubtedly dependent upon the state of the circulation through the head. (See 1st volume of these Reports, p. 27 to p. 34.) It is however not quite evident what part the simple mechanical congestion and what part the chemical condition of the blood takes in this morbid train of symptoms: there can be little doubt that both these causes exert a hurtful influence; for if any organ of the body is calculated to feel more injuriously than another the imperfect quality as well as the disproportionate quantity of the blood with which it is nourished, it is probably the brain; and I shall hereafter, when speaking on the subject of Jaundice, take the opportunity of referring to that disease as another instance in which the imperfect state of the blood is found to influence the appearance of the brain most obviously, and, as far as we can judge from the symptoms of mental and bodily depression, to influence the functions of that organ. In the case of jaundice, however, the evidence of pressure and mechanical accumulation is much less distinct, than of functional derangement depending upon the altered condition of the blood.” 221.

But here we must lay down our pen, and bid the Doctor adieu for the present number. We have devoted no mean share of our space to the present article, and we have laboured as much as in us lay to collect and condense, into the smallest reasonable compass, the important facts and cases which came before us; yet two hundred pages only have been examined, leaving more than twice the number for some future opportunity; and we have habitually refrained from interparagraphing our analysis either with much comment or critique, that the original might enjoy the length and breadth of our review, undiminished and unincumbered. We are indeed sorry that the Doctor has not varied his cases with more general remarks and individual deductions; with more practical inferences and pathological principles. It may be wise in a young and inexperienced observer to deal more in premises than conclusions, but a writer of Dr. Bright's calibre is only expected to lay down premises for the purpose of drawing inferences from them.* It is, no doubt, a service of essential moment diligently to collect and faithfully to narrate the interesting cases of disease which come within our notice; but it is still a much more essential service to digest these cases into practical lessons, and to draw from them the real theory and treatment of disease. The mere journalist may achieve the one work;—none but the enlightened and experienced physician can perform the other; and certain we are that no physician is better qualified to philosophize upon his own cases and extract from them all the therapeutic value which they contain, than the author of the work before us. The second volume is much less objectionable than the first in this respect; and therefore, this passing observation is to be considered as principally retrospective. We shall return to the work in our next Number.

II.

UNIVERSITY OF LONDON.

STATEMENT OF THE FACTS OF HIS CONNEXION WITH THE UNIVERSITY OF LONDON. By *Granville Sharpe Pattison*, Surgeon, &c. &c. &c. late Professor of Anatomy and Surgery in the University. Octavo, pp. 44. London, August, 1831.

Resolved,—"That Professor Pattison be, and he is hereby removed, from his situations, of Professor of Anatomy and Surgery in this University.

Resolved,—"That in taking this step, the Council feel it due to Professor Pattison to state, that nothing which has come to their knowledge with respect to his conduct has in any way tended to impeach either his general character or professional skill and knowledge."—*Minute of Council of July 23, 1831.*

THE SUN of the LONDON UNIVERSITY rose under circumstances that promised a bright and cheerful, if not a resplendent day. Sanguine hopes were entertained that an institution was formed, untrammelled by monkish ignorance and aristocratic pride, which would diffuse useful information, in accordance with the advanced state of art, science, literature, and civilisation, while it gave full and fair play to talent and to industry. There were however, discerning eyes, even among its friends and supporters, that saw certain maculæ on the face of this Sun of Knowledge, which portended storms, and clouds, and rain. The determination to dissever religious instruction from literature and science, was, it was said, a hazardous speculation, and an ominous feature in the New Institution. Such a dissociation might have no injurious effects in FRANCE, where the solemn truths as well as the outward forms of Christianity were treated with little respect, or rather with open

* Modesty in such a pen cannot be esteemed a virtue.

mockery; but it was doubted whether England was yet so far enlightened by fifteen years friendly intercourse with her neighbours, as to admit this deviation from the established regulations of academic bowers, without repugnance and strong opposition. A very short time shewed that these prophecies were well-founded; for there cannot now be a question, that the above objection has crippled the new institution, and contributed materially to its avowed want of success. Still, with this heavy drawback, the New University might have flourished, had it not exhibited two other important defects—want of wisdom in its management—and want of moral justice, we had almost said, want of common *honesty*, in its decisions. The Council of the University have signed, sealed, and delivered this sentence of condemnation on themselves, in the epigraph which we have placed at the head of this article! In avoiding, with horror, the ancient maxim “*fiat justitia, ruat cælum*,” they seem not to have dreamt that there was another rock on which the vessel might split—“*fiat INJUSTITIA, RUAT UNIVERSITAS*.” It is very true that PUBLIC BODIES, like nations and states, are far more selfish than individuals. They never do any thing *designedly* against their own interests; whereas individuals, in all ages and countries, have sacrificed self for the good of others. But these public bodies, nations, and states have very rarely effected, in the end, their own interests by INJUSTICE—by immolating RIGHT at the shrine of EXPEDIENCY. A day of reckoning and of retribution almost always comes, sooner or later—and that day has arrived very quickly with the New University.

We do not believe that there is an instance on record, where dissention, mismanagement, intrigue, and want of faith, so soon and so effectually sapped the foundation and blasted the fame of a great Public Institution, as in the instance now before us. It would seem that DISCORD lit her brightest torch at the very birth of the University, and has kept it fiercely burning ever since. The resignation, in disgust, of so many of her professors and officers, and in such a short space of time, is most unprecedented—and highly disgraceful to the Institution. We shall not, however, notice any other matters or proceedings than those connected with the medical department, and with the transaction now before us. The rights or the wrongs of one individual are of just as much consequence as those of five thousand. Any infringements on the *former* or perpetration of the *latter* demand as much investigation, where a single individual is concerned, as where a multitude are the victims. We shall now, therefore, endeavour, in as brief a manner as possible, to put our readers in possession of the leading features of Mr. Pattison's case, in order that they may be enabled to judge for themselves, conceiving it to be of great importance that the medical profession at large should come to some settled opinion respecting the merits of the question at issue.

As Mr. Pattison's statement may be considered as an *ex parte* one, it is necessary to premise that he submitted the proof-sheets to one of the Council, and the only medical member of it—consequently one most capable of judging—Dr. Birkbeck. This gentleman has declared, in writing, that Mr. Pattison's statements are “*always substantially and generally minutely correct, and remarkably free from exaggeration*.” A further evidence of their truth has been furnished by the fact that, at the public meeting of the proprietors, held on the 20th August, for considering his case, although his “Statement” had been published a week, the Council were unable to invalidate or put aside any of the charges he has advanced against them.

I. Mr. Pattison commenced his anatomical career in Glasgow, at the age of twenty years; and although he had Dr. Jeffery for his rival, yet his class augmented so rapidly that he was frequently obliged to refuse tickets from want of room, even in a large theatre.

II. With the private reasons which induced Mr. P. to give up so good a prospect, we have nothing to do. Suffice it to say that he was invited to Philadelphia, and there, being disappointed of the professorship which he expected, in the face of great difficulties—we may also suppose, *prejudices*, he soon, as a private teacher, attracted a class of more than

190 students, and secured so high a reputation as to induce the Regents of the University of Maryland to send a deputation to request him to accept of a professorship in their Institution. In this University Professor Pattison lectured for five years, and, by his talents as a teacher of anatomy and surgery, increased the numbers of the medical class from 70 to above 300, the emoluments of which, with his private practice, averaged full 2000 pounds per annum.

III. It was from this situation that he became candidate for the Chair of Anatomy and Surgery in the London University; and was successful, although Mr. Charles Bell, Mr. Mayo, and several others, were competitors for the office. It can hardly be supposed that there was any favouritism exercised in his appointment—indeed there was probably no lack of calumny exercised by his enemies (we do not mean his competitors,) on this appointment.

IV. It appears that some discredit has been attempted to be thrown on the *testimonials* produced on this occasion by Mr. Pattison, on the grounds that any blockhead may, by the assiduity of himself and friends, procure testimonials of talent and acquired knowledge to any amount. This is unfair—especially in the present case, where the *facts* of Mr. Pattison's success, as a teacher, were unanswerable documents in his favour. But independent of these testimonials, Mr. P. addressed letters to Lord Brougham and T. Campbell, Esq. earnestly soliciting the trial by *concours*, for the decision of the election. This was declined by the Council, as unnecessary.

V. Immediately on his appointment, he was requested to visit Germany, to collect preparations, &c. with a promise of a salary of £300 per annum, till the University should open. He spent £130 in his travels—and by a quibble, he was only rewarded with £100 at the end of a year and a half, employed on University business! The *punica fides* was thus early evinced by the London University!

VI. But the greatest grievance, of which Mr. P. has to complain, and which indeed led to all the subsequent evils of the case, the appointment of a *demonstrator* of anatomy quite independent of—and, in fact, in opposition to, or, at least, in rivalry of—the lecturer on the same subject. Whoever has spent even a week in a dissecting-room must have observed the advantages which a demonstrator has over the lecturer, for various and obvious reasons. The moment the unity of interest and reputation between these two personages is destroyed, from that moment ruin is threatened to one or both of them. Unfortunately Mr. Pattison and Mr. Bennett were placed in this false position, and the consequences have been fatal to one at least of them, while the conflicting passions of a mind ill at ease contributed no doubt to hasten the end of the other. If the evil genius of the University had been given a *carte blanche* for sowing the seeds of discord and destruction in the anatomical department of the Institution, he could not have devised a more certain method of effecting his purpose than by the arrangement which the Council ordained between Messrs. Pattison and Bennett. Dr. Birkbeck, the only medical member of the Council, and whose opinions ought to have had weight, was loud in his reprobation of this measure. With something like the spirit of prophecy, he predicted most of the heart-burnings and consequences which ensued.

VII. Among the early demonstrations of hostility to Mr. Pattison, were the following. Although the lectures went on prosperously for the first few months, yet *anonymous* writers began to make their way to the Council—were entertained—the complaints investigated—and the charges found groundless. Again the system of anonymous accusations commenced—again the ear of Dionysius was opened in the star-chamber of the London University—again the secret conclave of the Inquisition met, and perused the *anonymous* slanders—and again an investigation was set on foot! The subject was referred to Mr. Joseph Hume, who declared that “there was no legitimate ground of complaint, either as

related to the supply of subjects, or as to the mode in which Mr. Pattison conducted his lectures."

The first session having come to a close, at the distribution of honours, Mr. P. had occasion to read a passage from one of the answers of the gentleman who obtained the gold medal, and to commend it warmly.

"This was, however, displeasing to Mr. Bennett; and as Dr. Turner, who sat next to him on this occasion, observes, '*His conduct was exceedingly indecorous. His expressions of disapprobation were so loud, and his gestures so eager,*' that Dr. Turner '*was quite alarmed, and felt it necessary not to lose a moment in pacifying him.*' The intention of this manifestation of disapprobation was easily interpreted. It was intended to convey the impression to those around him, that what I read was in error, and that the Professor of Anatomy was so ignorant of his subject as to be unable to detect the anatomical blunders it contained. The matter was not permitted to rest here: my enemies, flattering themselves that by giving a sufficient circulation to this story, which they considered an incontestable evidence of my ignorance of anatomy, my reputation as an anatomical teacher would be ruined, took great pains to give it ample circulation. Who they were, and what measures they pursued to accomplish their purpose, I shall not stop to state; but their exertions were most successful, and almost every medical man in the kingdom had this pretended evidence of the ignorance of the Professor of Anatomy of the University of London detailed to him!" 5.

An open rupture now, of course, took place between the professor and his demonstrator, and each addressed the Council. In Mr. Bennett's letter, he reiterated the charge of ignorance of anatomy against Mr. Pattison, and the following passage will put our readers in possession of the specific instances adduced by the accuser.

"Paper marked No. 4, contains a literal copy of the passage which I read; and the passages which Mr. Bennett has marked as incorrect are underlined.

1st. My pupil states,—that the fifth pair of nerves are nerves of '*sensation.*' Mr. Bennett asserts that the fact is not so. I must confess I could hardly have expected such an assertion from Mr. Bennett. It is true Mr. Bell, in his first experiment, was deceived, and did publish, that the branches of the fifth nerve bestowed *motion and sensation* on the parts on which they were ramified. This *mistake* was, however, speedily discovered by M. Majendie; Mr. Mayo and every anatomist and physiologist are now satisfied that the fifth pair of nerves are nerves of sensation. The third branch of the nerve is joined by a motor twig, after it has passed out of the scull; but as the first and second branches are merely nerves of sensation, in speaking *generally* of the nerve as a *whole*, it would be decidedly incorrect to say that it was a nerve of '*sensation and motion.*'

2d. My pupil has stated, '*the white filaments do not enter into its formation;*' viz. the ganglion of Gasserius. Mr. Bennett asserts, that Mr. Jones is incorrect in the assertion that the whiter filaments do not enter into this ganglion. Bichat, Cloquet, and all the most distinguished anatomical writers, are of the same opinion as my pupil, and of course differ from Mr. Bennett. The following extracts from '*Bichat, Anatomie Descriptive,*' tome iii. p. 164:—'*Lorsqu'on renverse de dedans en dehors le faisceau aplati des filets du nerf, et le renflement auquel ils se terminent, on voit, comme l'a fait observer Prochaska, qu'entre eux et le rocher les filets antérieurs dont nous avons parlé restent totalement distinct. Leur volume, leur blancheur, leur isolement, les font reconnoître, IL NE S'UNISSENT POINT AU RENFLEMENT (ganglion);*'—and from Cloquet's '*Anatomie Descriptive,*' tome ii. p. 100:—'*LES FILETS PLUS BLANCS, ILS NE S'ENGAGENT PAS DANS LE GANGLION,*'—will suffice to prove that the description of my pupil is perfectly correct.

3d. The last passage in the description, marked by Mr. Bennett as an error, is the following line:—'*It then (the ophthalmic branch,) passes through the sphenoidal fissure, and divides into three branches.*' Mr. Bennett says it divides before it passes into this fissure. Now both descriptions may be said to be correct. One anatomist may say, that the nerve has not passed through the fissure, until it has perforated the dura mater; whilst another may assert, that as the dura mater is reflected through the sphenoidal fissure, and

as the nerve does not divide until it touches that membrane, it has, in truth, passed through the fissure before the division takes place. In Mr. W. Bennett's translation of M. Bayle's 'Manual of Anatomy,' the text-book which Mr. Bennett RECOMMENDS AS A GUIDE to his pupils, the description of the point of division is in strict accordance with that given by my pupil, p. 269, 'receiving a twig from the superior cervical ganglion, and traversing the sphenoidal fissure,—IT AFTERWARDS divides into three branches,' &c." 9.

From the above, it is but too evident that the late Demonstrator was actuated by some hostile spirit against Mr. Pattison—indeed we have heard him, even on his death-bed, use such bitter expressions towards his colleague, that we have more than once or twice remonstrated with him on his hostility to a fellow-labourer in the same Institution. With the reasons or motives which urged the late Mr. Bennett to this conduct, we have no knowledge. They lie concealed with him in the lonely grave!

VIII. Mr. Horner, the warden of the University, now comes on the arena. His invitation to Mr. Charles Bell to take Mr. Pattison's place is a curious transaction already known to the public. The third session was marked by an increase of annoyance to the unfortunate Professor of Anatomy. He was assailed by open and concealed accusers, and at this time four of his colleagues, Drs. Conolly, Thomson, Davis, and Turner, formed themselves into a committee and investigated the charges against Mr. P. They examined all the more intelligent and diligent students, and the result was a complete conviction that the charges were utterly groundless. They conclude by affirming "that this inquiry has furnished strong matter of suspicion that the charges have originated in feelings which are too personal in their nature to deserve the countenance of the council."

From this time the train of transactions is quite sickening to think of—and we cannot bear to give their details. A Mr. Eisdell, whose examination, it is said, evinced the most astounding ignorance, addressed a letter to the Council, declaring it as *his opinion* that Mr. Pattison was incompetent to teach anatomy. The Council kindly considered this student's letter, and as kindly wrote to him that they could not institute an examination into the charges upon the representation of "*one pupil*"—which was as much as to say, you must get half a dozen pupils to join you, and *then* we are at your commands!! The invitation was readily caught at, and, accordingly about fourteen or fifteen pupils joined with Eisdell and Dr. Thomson, junr. in a coalition against the devoted Professor of Anatomy. Before another investigation could take place the students had dispersed into the country, but not before they were invited to send their charges *in writing* to the Council. This was fortunate. They could not combine under an artful leader, and their accusations were all contradictory! One accused him of not lecturing on a particular organ—another of lecturing too much on that same organ! One affirms that he was not minute enough on the bones—another that he spent a great deal too much of his time on osteology! In short, their accusations were nothing but a tissue of contradictions which would have turned them out of any court of justice in Christendom. This was "too bad." The Council were almost ashamed of themselves, and *compelled* to come to a decision that the charges against Professor Pattison were "utterly groundless."

IX. The Council being at last, when too late, convinced of the impolicy of making the Demonstrator of Anatomy independent of the Professor, applied to Mr. Pattison for advice. He offered to give Mr. Bennett (spontaneously), one half of his professorship, provided that, in all announcements, &c. it should be distinctly stated as a voluntary surrender of the same, and not as forced upon him by the Council. Here again the *punica fides* became manifest. They faithfully promised the foregoing stipulations—but forgot to perform them! They did not indeed state that Mr. P. was forced to this measure, but they omitted all mention of the voluntary nature of the gift. Like Jupiter of old, they—

Heard the prayer,
Accorded half, while half was lost in air.

Shortly after the investigation above alluded to, Mr. Pattison was appointed to the chair of surgery, shewing pretty plainly that no spot of blame attached to his character. As Dr. Thomson, junior, had taken an active part in the insurgency of the pupils, he was prohibited from entering the University; but Mr. Horner, on his return from Scotland, quickly annulled the order, and on his own responsibility, in direct violation of the order of Council, admitted Dr. T. who made good use of his time in setting the students again to work at the old trade. Mr. Horner, in the plenitude of his power, little thought that his turn was coming, and that, ere long, his own wings would be clipped in the London University! Will it be believed, that Mr. Horner, the Warden, wrote or dictated a letter for the insurrectionary students to forward to the Council!! The scenes of riot, insubordination, and misrule on the part of the students—the incapacity of the Council—and the duplicity or worse of the Warden, baffle description, and would disgrace the pages even of a common newspaper. We have not room—and indeed we have not patience to condense the shameful series of outrages on decency, justice, discipline, and common sense, which are here displayed. Our blood boils when we think of them; but they will bring on the heads of their authors a condign punishment, the utter ruin of the school—at least of the medical school—for the name of UNIVERSITY it does not deserve.

X. Harassed with the insubordination of the pupils and the inquisitorial conduct of the Council, Mr. Pattison proposed that a short-hand writer should take down his lectures verbatim, and thus afford the University and the public an opportunity of judging of their nature. The Council refused, on the ground that—“*they had no doubt as to his ability and fitness for the discharge of the duties of his professorship.*” But after this decision, a kind of secret committee—an imperium in imperio—sat for several weeks, examining into the question of Mr. Pattison’s competency! The climax of ignorance, injustice, and absurdity, is now at hand.

“The injustice of the acts of this Committee is only exceeded by their absurdity. Without taking the pains to ascertain whether I had really committed the errors with which I was charged, they proceeded to investigate whether the charges made did or did not contain anatomical blunders.

Lord King, Mr. William Marshall, and Mr. Merrivale, not one of whom knew a nerve from an artery, constituted themselves the judges of my anatomical pretensions! The proceedings of this Committee became too ridiculous for even the students to stand it. The anatomical engravings belonging to the medical library were carried into the Council Room; and with these before them, and with the assistance of anatomical dictionaries to explain technical terms, these gentlemen gravely deliberated on the amount and correctness of the anatomical knowledge possessed by the Professor of Anatomy!

I have never been able to learn precisely what was the result of the deliberations of this committee. I believe they could not make out a single charge, and getting tired, in about three weeks, of the study of anatomy, they terminated their labours.” 28.

It might have been expected, or at least hoped, that the termination of the session would have put an end to the Professor’s vexations. But not so. In May of the present year Mr. Pattison received a notice from the Warden that a Mr. Thomas Wilson was about to move the Council that, “it be recommended to Professor Pattison to retire,” &c. To this Mr. P. naturally enough demurred, and addressed the Council against the proposed motion. Mr. Wilson did not attend on the day appointed; but a smuggling procedure afterwards took place, and a session of Council was summoned for the purpose of removing Mr. P. from his professorships. This being known to the Professors of the University, a most

spirited and energetic remonstrance, from six of the most distinguished Professors, was forwarded to the Council. We wish we had room for this admirable document. One sentence we shall copy—since it ought to be written in letters of gold. “We beseech the Council to bear in mind, *“that injustice can never be defended by expediency; that whatever be the immediate effects of the proposed measure, it must, in the long run, be followed by evil, which never fails to attend a departure from strict equity,”* &c. This protest seems to have staggered the Council. At the meeting, an adjournment *for a month* was determined on, Mr. Pattison’s friends clearly understanding that this was only another name for an adjournment *sine die*. At the end of the month (during which a threat and an offer of £200 per annum for five years, were held out as an inducement to voluntary resignation,) the trial again came on, and again it failed, as a quorum of the Council could not be collected to perform the dirty and infamous execution! It was now supposed that the Professor would have some respite from persecution and tyranny. But no. The SELECT COMMITTEE (packed friends it would appear of Mr. Horner,) went to work, and soon passed a resolution to recommend to the Council that Mr. Pattison should be dismissed! It is hardly necessary to state what has been made so generally known to the public, that this recommendation was adopted and acted on, the Council stultifying and damning themselves for ever by the resolutions quoted at the head of this article. It is true that Captain Gowan, one of the Select Committee, protested against the proceedings,—and that a meeting of the proprietors was again called, on the 20th August to reconsider the transaction. This meeting confirmed the tyrannical proceedings of the Council—and thus terminated the first act of the University drama!

Such a result was to be expected from an institution which repudiates religion—violates justice—and openly sacrifices morality to expediency! But injustice is always short-sighted—and truly have the six Professors said that “whatever be the *immediate* effects of this measure, it must, in the long run, be followed by evil, which never fails to attend a departure from strict equity.” Yes; the evil day will come—and too soon for the mercenary proprietary, who will find that, however prone to wickedness parents may be, they do not generally choose to educate their sons in dishonourable principles. What parent, we ask, will send his child to a UNIVERSITY where there is no discipline, no religion, no sense of honour or justice—and where a premium is held out for insubordination, faction, misrule, and contempt of all decorum? The fact is, the LONDON UNIVERSITY has sealed its own fiat in its conduct on this occasion. The Professors are treated like servants—and their places are made to be dependent on the judgment or caprice of ignorant students. Well might the six Professors say, in their address to the Council, “that the honour, the respectability, and the rank in society of each of them was involved in the decision of the Council upon this point.” Lastly, it is melancholy to think, that a number of youths, whose minds are naturally ingenuous, and imbued with a love of justice as well as generosity, should have been so poisoned by faction from below, and so nurtured into insurrection by imbecility from above, that *they* have played their part, and no unimportant one, in the tyrannical, unjust, and disgusting transaction which we have here put on record. We deem it not necessary to apologise to our readers for the length to which this article has extended. The proceedings of the Council, the Secret Committee, and the Proprietary of the LONDON UNIVERSITY should be extensively known, in order that parents and guardians may be aware of the kind of scholastic discipline, moral precepts, and religious feelings which are likely to be instilled into the minds of youth in that INSTITUTION.

P.S. A second meeting of the Proprietors took place on the 3d of September, when a majority, as might be expected, confirmed the proceedings of the Council. But more than a third of this meeting were in favour of the Professor. Would any man be condemned, if FIVE out of the 12 composing a jury decided in favour of the accused? Certainly not. The Council and their friends were unable to invalidate any part of Mr. P.’s statement.

III.

ON THE PATHOLOGY OF THE BLOOD. By M. Andral.

[Pathological Anatomy, Vol. I.]

THE important subject at the head of this article occupies fifty pages of the first volume of M. Andral's work, as translated by Drs. Townsend and West—and is well deserving, we think, of a separate article in this Journal. We have always been of opinion that, whatever be the *origin* of a vitiated condition of the blood and other fluids of the body, this morbid state plays a very important part in the subsequent enactment of disorder in the constitution. The investigation is, therefore, extremely interesting, and of a highly practical nature. Even when the doctrine of solidism was almost exclusive in France, the immortal Bichat observed that, although the humoral pathology had, no doubt, been carried too far in former times, yet there was no doubt that it was founded in truth—and that, in a “great many cases we must allow that *all* should be referred to morbid humours.” * Bichat did not follow up this idea in any of his works, nor did any of his contemporaries act on the suggestion. The extravagances of the humoral theorists, and the dangerous practice to which such extravagances led, put rational practitioners on their guard against the humoral pathology—and this doctrine appeared to be consigned to oblivion. But it was easy to foresee, that exclusive solidism would be as inadequate to explain the phenomena of disease as exclusive humoralism; and, therefore, M. Andral acted a judicious and useful part in collecting facts, and drawing up a kind of inventory of all we are in possession of that bears on the subject under consideration. Let us, says he, endeavour to determine accurately where we are, in order that we may know where we are going—to what conclusion we are proceeding—and how we are to arrive at it.

The alterations of the fluids should be studied—*first*, in the blood—*secondly*, in the different humours concurring to form the blood, or emanating from that fluid. The qualities of the chyle and lymph must have a direct influence on the blood—and if we find the secretions modified in quality or quantity, we may often infer modifications in the state of the blood whence they are derived.

“The blood, while circulating, seems to be under the influence of two forces. The one imparts to the mass an intestine motion, by virtue of which each of its globules moves on by itself, surrounded by an envelope of colour-

* Introduction to his “ANATOMIE GÉNÉRALE.”

ing matter, and keeping at a certain distance from the rest. This double action of attraction and repulsion ceases to take place the moment the blood leaves its vessels. The other force, directly opposite to the preceding, tends to bring the blood to a state of repose: it is exerted in the organic parenchymas at the point of contact of the solids and the blood. The blood, when examined with a microscope in these parenchymas, has been compared to a kind of whirlpool, from which particles were incessantly detached to be lost in the solid substance, whilst others were quitting this latter and returning into the vortex. If, then, there is a great difference between the blood contained in the large vessels and the different solids, that is by no means the case in the capillaries; in these, the blood and the tissues to which it is distributed tend to be confounded together. At their point of contact, the blood assumes the nature of the solid, and becomes organized; so that its vitality is no longer dubious. But it is not there only that we can discover a power of organization in the blood; we find it active and prolific wherever the fibrine coagulates, whether in the vessels or out of them. I have already shewn how, under such circumstances, vessels make their appearance in the fibrine, how a circulation becomes established, secretions take place, and tissues are developed in it. If we analyze the blood and the solids, we discover the same proximate principles in both. If we examine their physical structure, we find it identical, both consisting of globules mixed with an amorphous substance. Borden acknowledged this identity of composition when he said that blood is fluid flesh. '*Le sang est de la chair coulante.*'

Thus, then, in the three-fold respect of the vital phenomena, intimate structure, and chemical composition, no line of demarcation can be drawn with strictness and precision between the blood and the solids. Physiologically speaking, it is impossible to conceive that one of these two parts of the same whole could be modified without the other being so likewise. On the one hand, inasmuch as the blood nourishes the solids, and as without its presence they cannot support life, the state of the solids cannot but be influenced by the state of the blood. The chemist might as well say that the nature of a body does not depend on the nature of the elements that compose it. On the other hand, the solids, considered with respect to their relations to the blood, form but two classes: the one contributing to *make* the blood, such as those concerned in the action of absorption, digestion, arterial circulation, and respiration; the other contributing to *unmake* it, those, namely, concerned in the actions of venous circulation, secretion, and nutrition. No one solid, therefore, can undergo the slightest modification, without producing some derangement in the nature or quantity of the materials destined to form the blood, or to be separated from it. Physiology, then, leads us to the conclusion that every alteration of the solids must be succeeded by an alteration of the blood, just as every modification of the blood must be succeeded by a modification of the solids. Viewed in this light, there is no longer any meaning in the disputes between the solidists and the humorists; the system appears to constitute but one great whole, indivisible in the state of health as well as in that of disease; the divisions of the parts of the body into solids and fluids seems to be a distinction of small importance, and one that is not always just, since it ceases to exist in the intimate

structure of the organs, in which all the grand vital phenomena take place, and in which, also, occur all the changes that constitute the morbid state." 643.

The intimate and necessary dependence, then, of the fluids on the solids, and the solids on the fluids, being acknowledged, how are we to proceed? We must carefully observe the facts of changes in the blood and its products, and note the phenomena, drawing, when we can, such conclusions as seem warranted by the data. Chemistry informs us that the blood is composed of fibrine, albumen, a peculiar colouring matter, free soda, oxide of iron and lime, with a number of different salts, as lactate of soda, muriate of soda and potash, phosphate of soda, &c. &c. &c. besides some other peculiar matters of recent discovery, as carbonic acid, oily matter, urea, &c. Thus the elements of most of the organs of the body, and of some of the secreted fluids, are found in the blood itself. Observation has long made us familiar with the separation of the blood, when drawn from vein or artery, into two parts—the *solid*, principally composed of fibrine and colouring matter—the *fluid*, consisting chiefly of water and albumen. The author then goes on to study the pathological conditions of the blood in respect to each of the elements abovementioned.

"The fibrine may be altered either in quantity or in quality. In the first place, there are cases in which this principle is more abundant than usual, or at least in greater proportion relatively to the water and albumen. In such cases, the blood, when drawn from a vein, forms in the vessel that receives it a clot with little or no serum. These are however to be divided into two classes. In the first class of cases, the fibrine constituting the clot, still contains a pretty large quantity of serum, which may be separated from it by pressure; in these the coagulum has but little density. In the second, on the contrary, the clot is very dense, and a little fluid albumen can with difficulty be squeezed out of it. In the first class the relative increase of quantity of the fibrine is only apparent; in the second, it is real. We must take care not to confound them, as they belong to different states of the system. The very fibrinous blood is commonly called *rich blood*: it may either depend simply on a vigorous constitution, or on certain morbid states.

In place of being superabundant in the blood, the fibrine may, on the contrary, be quite the reverse. There are, in fact, some persons whose blood, when taken from a vein, presents but a very small coagulum in proportion to the large quantity of serum in which it appears. But here, likewise, we must make a distinction. The diminution of quantity of the fibrine may be only apparent; as happens when its particles, being very strongly condensed, are much closer to each other than in their natural condition; the clot is then very small, and remarkably firm; this occurs very often, for instance, in patients suffering under acute rheumatism. In other cases, the clot is not only very small, but also very soft; and there is then really a deficiency of fibrine.

This may be observed in many cases of chronic disease, or in persons with a slender muscular system, and habitually pale skin." 646.

Thus we see that the proportions of fibrine in the blood vary considerably, and we have reason to know that the constituent principles of the fibrine itself also vary, and in ways which we can hardly expect to ascertain by chemical analysis, though we may well believe that such variations will operate on the functions of the living machine.

"The force that tends to keep the globules of fibrine at a certain distance from each other during life, may be so modified as that they shall have a tendency to run together, as they naturally do after death; and hence may result the spontaneous coagulation of the blood in its vessels during life. There have been too many cases of this nature observed, for us of the present day to attempt to deny the possibility of its occurrence. Sometimes it takes place without any known cause; and sometimes it appears to accompany a state of irritation in the parietes of the containing vessel. When the blood once becomes solid, it displays indubitable symptoms of vitality; vessels are produced, and secretions formed in it; and different alterations of nutrition, resembling those observed in the tissues, may also occur. If we examine whence this coagulated blood derives its vitality, we find that it cannot partake of the common life of the rest of the body, since it very often merely touches the surrounding tissues, without being in any manner continuous with them. We must therefore admit that these polypiform concretions, or *polypi*, as they are called, may possess a proper vitality, by means of organs they have created themselves." 648.

In other cases, on the contrary, there is a diminution of force in the cohesion of the fibrinous particles—hence a less tendency of the blood to coagulate—or a total absence of coagulum—or when there is a coagulum, it is soft, and void of resistance. In some cases there is no appearance of even the fibrinous particles, which are completely mixed with the serum, producing a fluid mass, of a reddish or black colour. These different appearances produced in venesection, may also be seen in the dead body. The white layer of coagulum, known by the name of inflammatory puff, is well understood.

"The puffy coat is formed of pure fibrine, with which is mixed a certain quantity of serum, which, according to the researches of Dauber and Gendrin, contains much more albumen than the serum of the rest of the blood. The greatest analogy exists, both in respect of appearance and of chemical composition, between the puffy coat of the blood and the substance that constitutes the false membranes of the serous cavities." 650.

The experiments of Dr. Traill, confirmed by M. Gendrin, prove that in inflammation, the serum of the blood contains nearly twice as much albumen as in the healthy state. This increase of the albumen may be

detected simply by the touch—the serum being then remarkably viscid. In other cases, on the contrary, the very small coagulum obtained by heating the serum (the greater part of which evaporates) proves how much the quantity of the albumen is diminished.

“It is worth while remarking, in many of these cases, how very just are the common expressions of *impoverished blood*, *watery blood*, *blood turned into water*, &c.

In some persons, the blood drawn from a vein is remarkable for the intensity of its colour; in others, on the contrary, it is exceedingly pale, the coagulum is of a rose-coloured white, and the serum resembles water; in this case the colouring matter of the blood is either diminished in quantity, or altered in its nature. This in general co-exists with an increase of the serous part of the blood. The human being, in such cases, appears in this respect to descend in the zoological scale, and his blood tends to become analogous to the naturally colourless blood of certain animals. The same causes that we have already seen producing anæmia, are generally those also which tend to diminish the quantity of the peculiar animal matter to which the blood owes its colour.” 652.

In another part of the work, M. Andral has mentioned cases where there were discovered in the blood not only different elements of the secreted fluids, but also sundry morbid productions, such as pus, encephaloid matter, entozoa, and calculous concretions. In whatever way these have originated, there can be no doubt that they change the constituency of the circulating mass—and vitiate the living current.

“Now, who could assert that in such cases the blood is not deeply altered in its nature. Besides, most commonly there are at the same time in the texture of many of the solids, morbid secretions, purulent or otherwise, formed of a matter that has the greatest analogy to that found in the vessels. Amongst the cases of this description I have had an opportunity of observing, I shall adduce the following. In a woman who died at *La Charité* with all the symptoms of a chronic affection of the lungs and of the digestive passages, I found in front of the vertebral column an enormous tumour composed of an agglomeration of lymphatic ganglions, which, instead of their natural tissue, presented merely an inorganic pap, of a greyish or reddish colour. A similar substance appeared in the liver, in the form of roundish isolated masses; it was also found in the spleen, in the cells of which it appeared to be deposited in place of the blood they usually contain; lastly, in several points of the lungs, the lobules were infiltrated with the same substance. But that was not all; for in both lungs, a great number of the branches of the pulmonary artery contained, instead of blood, a curdy matter of a reddish grey colour, resembling in appearance the morbid matter found in the mesenteric ganglions, liver, spleen, and lungs. The right cavity of the heart, the pulmonary artery, and its first divisions, contained a blood of little colour, and poor consistence. In another woman, who had a broken down cancer of the uterus, all the veins

of that organ, and the trunk of the vena cava up to its passage under the liver, were full of a semifluid sanious matter of a greyish or reddish white. In a man far from being advanced in life, who had in a great many organs, encephaloid masses in a state of softening, the inferior vena cava, the renal and splenic, and some branches of the superior hepatic vein and of the pulmonary vessels, were filled with a kind of detritus of a reddish grey colour, without its adhering to the venous parietes, which, in this case, as well as in the preceding cases, presented no appreciable trace of alteration. Facts similar to those just mentioned have also been observed by others. Thus, Beclard mentions a case in which the heart and principal trunks of the vessels were filled with a solid clot, the interior of which presented numerous collections of encephaloid matter. M. Velpeau found a mass of encephaloid in the midst of a clot of blood contained in the vena cava. He also cites a case of a man that died almost suddenly, after having shewn some symptoms of cerebral congestion, and in whom, upon examination, there was found through the whole extent of the circulatory system, a blood of a pulaceous consistence and blackish red colour, resembling the matter of certain abscesses of the liver.

Bichat, in his *Anatomic Générale*, has related a case in which the vena portæ and the hepatic and splenic veins, instead of blood, were filled even to their very last ramifications with a greyish sanies. I have already brought forward cases in which a matter exactly similar to pus was found in the midst of a clot in one of the cavities of the heart, without any purulent collection existing elsewhere in the body." 656.

The alterations of the blood are indicated by other means than simple inspection or chemical analysis. We know that, in general, the blood of one animal may be transfused into the vessels of another, with impunity. When we find that the blood of a diseased animal when introduced into the circulation of another, proves a real poison, it is impossible not to conclude that the nature of the blood is changed in such diseased state. The following facts are deserving of record.

"M. Gendrin, in his work on fevers, (vol. ii. p. 145,) gives an account of a flayer whom he attended in a putrid fever with an eruption of gangrenous pustules. An ounce of blood drawn from one of the patient's veins was injected into the cellular tissue of the groin of a cat. The consequences to the poor animal were copious vomitings of bile, at first yellow, and then greenish, dyspnoea, a small, frequent, and irregular pulse, a dry and brown tongue, a constantly increasing prostration of strength, and, towards the close of the scene, some slight convulsive motions at intervals. Death ensued in six hours and fifty minutes after the injection. The appearances observed on examining the body are described as follows:—The skin of the groin did not adhere to the subjacent parts; the cellular tissue was soft and almost pulpy, and of an ashy yellow colour; it exhaled a fetid odour, and was dotted with small red spots; the gastro-mucous membrane of the stomach and intestines was in the natural state, that of the respiratory passages was of a reddish brown; the lungs, especially the left, contained black blood, and were full of brownish black spots; the blood

throughout the whole body was black and fluid ; in the left pleura were about two ounces of very serous black blood ; the heart was soft and flaccid ; there was no appearance of lesion in the brain or spinal marrow ; the body speedily began to exhale a fetid odour.

Some blood that proceeded from an epistaxis that occurred in the same patient, was injected into the femoral vein of a dog. The animal exhibited the same series of symptoms as the one in the preceding experiment, which, in like manner, terminated in death.

In another work, (*Histoire des Inflammations*, vol. ii.) M. Gendrin relates some experiments in which he injected into the veins of animals the blood of persons labouring under confluent small-pox. Very severe symptoms, which rapidly proved fatal, ensued ; and on opening the bodies, several organs were found in a state of high inflammation.

MM. Dupuy and Leuret introduced into the cellular tissue and veins of a sound horse, blood that came from horses affected with malignant anthrax, ('charbon') and thus succeeded in producing the disease. It is, then, beyond all doubt, that in this case the blood itself was altered in its nature, since it proved capable of transmitting the affection.

These facts bring to our recollection some others, for an account of which we are indebted to the celebrated Duhamel. He has related a case where an ox, that was over-driven, having been slaughtered at an inn at Pithiviers, the butcher put into his mouth, for a few moments, the knife he had employed for the purpose. The consequence was, that in some hours afterwards his tongue swelled, his breathing became difficult, and then blackish pustules broke out all over his body : at the end of four days he died. The inn-keeper wounded himself with a bone of the same ox in the palm of his hand ; his arm mortified, and he died in seven days. Two women having received some drops of blood of the same animal, the one on her hand, the other on her cheek, these parts were seized with a gangrenous inflammation. Is it not likewise the simple contact of the blood of diseased animals that produces malignant pustule in man ?

From these facts we must conclude that, under certain circumstances, the blood may be altered in its intimate nature, so as to acquire noxious properties, which display themselves when it is mixed with the blood of healthy animals." 659.

The alterations in the blood hitherto treated of, may be ascertained by experiment ; but there are others which, M. Andral thinks, we might fairly admit from induction. Thus, for instance, if an individual has breathed an atmosphere impregnated with deleterious miasmata, or feeds on unwholesome food, and becomes sick in consequence, physiology would lead us to infer that the blood, in such a case, "has been at least the vehicle of the morbid matter residing in the air or in the food." If bad diet furnish bad chyle, we may reasonably conclude that this chyle will not form good blood.

"But when we inject into the veins of animals different organized substances in a state of putrefaction, the blood, in such a case, is not merely a vehicle to carry to the solids the deleterious substances that inflame them ;

its unusual appearance leaves no room to doubt its being really altered in its nature ; thus, it readily putrefies, it has lost the power of coagulating, the force of aggregation uniting its molecules is singularly diminished, and the most of the tissues become like filters, through which it oozes on every side. Various animal poisons, such as those of several of the snake tribe, and different mineral poisons, as mercury, for instance, act upon the blood in the same manner." 660.

There are some supposed or real electrical changes in the blood during disease, but their nature is not exactly ascertained. The direct influence of the nerves on the blood must be taken into consideration. In the great vessels, indeed, where the stream is large and rapid, we cannot suppose that much influence can be excited by the nerves dispersed over the internal surface of the vessels ; but in the capillaries, where the blood comes into contact with the solids, and is, as it were, confounded with them—where it manifests signs of vitality—and where, in conjunction with the nerves, it gives life to the organs which it traverses—in these, it would be difficult to deny the influence of the nerves on the blood. It is in the capillaries that the great law of mutual dependence, which connects all parts of the system, is fully exerted, so as to make, out of so many different elements, a single whole—out of so many lives, a single life. In those situations, the nerves must act on the blood as the blood acts on the nerves.

"M. Dupuytren proved, long ago, that cutting the pneumo-gastric nerves prevents the venous from being converted into arterial blood in the lungs.—Dr. Mayer, from an experiment of his own, maintains that the nervous system has an influence over the blood, not only in the capillaries, but even in the large vessels. He observed, that, whenever he tied both pneumo-gastric nerves in animals, the blood in the whole of the pulmonary system coagulated, and the colouring matter separated from the fibrine ; and he took care to ascertain that these were not the consequences of death, by opening the animals the very moment they expired.

The learned and indefatigable Professor at Alfort, M. Dupuy, having lately tried upon a horse the experiment of cutting the pneumo-gastric nerves in the cervical region, has ascertained that, under such circumstances, the quantity of fibrine in the arterial blood drawn from the carotid is notably diminished." 662.

M. Dupuy asserts that he found the blood entirely dissolved, in the animal whose pneumo-gastric nerves he had cut. By injecting this dissolved blood into the jugular vein of another horse he produced in the latter a gangrenous affection. These experiments, however, must be repeated before we can place dependence on them. M. Andral is firmly persuaded in his own mind, that these alterations in the blood are often primary, and precede those of the solids—consequently, that the origin of many diseases is in the blood.

"If it is true that the mass of the blood may, in certain cases, be primarily altered, it follows that the existence of general disease is not merely imaginary. In fact, when all the tissues thus receive a vitiated blood, is it not consistent with sound physiology to admit that their regular modes of vitality, nutrition, and secretion, must be more or less deeply modified? We must either admit this conclusion, or deny the influence which, according to every physiologist, the blood exerts over each solid. It may then happen that one or more organs are affected in a more decided manner than the rest, and there may thus be produced in them various lesions that are only accidental and secondary; but it is not in these lesions the origin of the affection lay; it is not on them all the symptoms depend; nor, lastly, is it to them alone we are to have recourse to throw a light upon the true nature of the disease, as well as upon the treatment proper to be pursued. Experience also teaches us, that these lesions may be either severe or slight, present or absent, similar or dissimilar, and that, notwithstanding, the disease, though presenting so many different shades in its variable symptoms depending on these lesions, does not the less exist, as it really consists in the constant symptoms depending on the state of the blood." 664.

It may be objected, that persons are seen whose blood presents all the above lesions, and who are, nevertheless, in good apparent health. M. Andral answers that such individuals are on the brink of disease—and, if any cause chances to derange the equilibrium of the system, some of the morbid phenomena resulting from impure blood are pretty sure to occur.

The diseases that seem to be connected with a morbid state of the blood, are either acute or chronic. Our author next proceeds to make some observations on each of these classes.

He has already established this fact, that, under the influence of a state of *hyperæmia*, every organ becomes excited—that death may result from this excitation—and that, in such cases, a superabundance of blood is found in all parts of the body—without any appreciable lesion of texture.

"In such cases there exists that state of pyrexia termed by nosologists inflammatory fever. But if, instead of being simply in excess, the blood contains more fibrine than ordinary, its exciting power will be still greater, and what it did in the former case merely by its increased quantity, it will do now by its alteration in quality.* Under such circumstances, is it not evident that one of the indications to be fulfilled must be to dilute the fibrine with more water? Hence the utility of administering plentifully aqueous drinks. M. Piorry has lately announced, that one of the means of preventing the formation of false membranes in croup is to gorge the patient with water;

* "An increase in the quantity of fibrine in the blood produces some remarkable effects on several vital actions. Thus MM. Prevost and Dumas have ascertained, that the faculty of producing heat increases in animals in proportion to the number of the globules of the blood."

and we know that M. Magendie has seen the symptoms of meningitis diminished by injecting water into the veins of the patient." 665.

The puff of blood, our author observes, is not the necessary result of local irritation, inasmuch as it is often found before any such process commences—simply, from the presence of a plethoric habit, or of a disposition to sanguineous congestions. It is found in pregnant women, who are so disposed to hyperæmia subsequently to parturition.

"The ancients, then, were, perhaps, in the right in admitting an *inflammatory state* of the blood, of which the phlegmasiæ of the solids were often merely the effect and external manifestation, as it were. On this inflammatory state of the blood would appear especially to depend, in certain cases, the phlegmasiæ of the membranes of the serous and articulating cavities. In the first place, we are to observe that the morbid secretion that takes place in the surface of several serous membranes when inflamed, is exactly similar, in its physical and chemical properties, to the albumino-fibrinous substance that forms the puff; and that it may be organized even within the vessels (provided there be a stagnation of the particles that form it) just as it is observed to become organized on the serous membranes on which it has been deposited. Now, if we mark the symptoms and progress of acute rheumatism, we find that very often a well-marked febrile action, with a strong reaction, but without any symptom whatever of local affection, precedes the pains. In a word, there is first an inflammatory fever, and then rheumatism. Next observe the extreme mobility of these rheumatic pains; they run along in a manner wherever the blood is distributed; the application of leeches often removes the pain from one part, but is soon shifted to another; and not unfrequently it quits the articulating tissues, and fixes upon different internal organs, producing by the derangement of their functions symptoms more or less severe. It often happens that a bleeding from a large orifice puts an end to the disease; as if, by diminishing the mass of blood, it proportionably diminished the stimulus that produced all these shifting irritations. When that occurs, in the subsequent bleedings the puffy coat becomes less apparent, and at last disappears. But if, on the contrary, the rheumatism does not yield to venesection, the puffy coat persists, and even becomes more apparent as venesection is more frequently resorted to: the serum increases while the coagulum diminishes, and yet, be the coagulum ever so small, it is nevertheless covered with a puff as long as the rheumatism continues." 667.

The above, he admits, is only matter of conjecture—but there is probably more foundation for it than for some sublime theories that have travelled far and wide in their day.

When deleterious substances, as pus, putrid matters, and poisons from the three kingdoms of Nature, have been introduced into the blood, the following phenomena are often observed, viz :—1st. The nervous centres become much affected, producing, according to the degree or nature of the affection, instantaneous death, prostration of strength, convulsions, delirium, &c. or dyspnoea, palpitation, or vomitings. 2dly.

“On opening the bodies of the animals that presented these different morbid phenomena, we are sometimes unable to discover any appreciable lesion: sometimes we meet with congestions or effusions of blood resembling those that had been observed during life; and, lastly, we sometimes discover greater or less alterations in the texture of the different solids. Along with these variable phenomena we always observe the two following constant ones; 1. a remarkable fluidity of the blood; and, 2. a more rapid decomposition than ordinary of the blood itself, or of the different solids it penetrates.

Where is the source of these various phenomena? Is it not evidently in the blood, into which the deleterious substances have been introduced? Now, these derangements of functions and organs produced by the experimenter, when he introduces different deleterious substances directly into the blood, are likewise those that are produced by the sting or the bite of certain animals; they are also those that take place from touching the flesh of animals that die of the plague, as well as those observed in small-pox, measles, and scarletina, of a malignant nature, as it is called. They are the same derangements that appear in persons exposed to putrid emanations, vegetable or animal, and to miasmata from the bodies of other persons that are themselves diseased and crowded in confined places where the air is constantly receiving the infection, without being changed by ventilation. Lastly, they shew themselves also in individuals whose blood is only imperfectly or badly repaired by insufficient or unwholesome diet.” 669.

The author asks what it is that we discover as the element of the disease in all these cases? Not, says he, any determinate lesion of one or more organs—for, often, no such lesion is found. It is therefore he thinks, “a vitiation of the blood by the commixture of deleterious substances—next, and consequence of such vitiation, disordered function of the nervous system—and lastly, a constant, though not always appreciable modification of the different organs by the vitiated blood.”

It is to be remarked that diseases resembling the above, both in symptoms and *POST-MORTEM* appearances, not unfrequently occur in cases where no deleterious substance has been introduced into the blood, and where there is no direct proof that any alteration of that fluid has been the primary cause of the morbid phenomena. If, however, says M. Andral, these phenomena are perfectly identical with those which are evidently produced by vitiated blood—if on examining the body we cannot detect here, any more than in the preceding cases, any constant lesion in the solids—and, if we always observe a certain number of fundamental symptoms, whether these lesions exist or not—what is the conclusion which we ought to draw, consistent with true logic and sound physiology?

"Certainly this, that here, as in the preceding cases, it appears that the primary cause of the disease should be referred to the blood, which, in this case has altered its nature under the influence of unknown causes, as it has in the others in consequence of the commixture of various foreign substances." 671.

Perhaps, (he observes,) there are cases of this kind, where the modification of the blood is only *secondary* to a modification of the nervous system. If, for instance, under the influence of a strong mental emotion, the nervous system be suddenly deranged in its functions, and ceases to exert its proper influence over the different organs in which the blood is elaborated, deposited, and receives new materials; must not that fluid itself become altered in its turn? If so, there must thence arise a number of organic and functional derangements, varying greatly according to the mode and intensity of the primitive alteration of the enervation. In such cases, we may observe to occur sporadically, those same diseases, typhoid or other, that we have just now seen prevailing epidemically under the influence of manifest causes of infection of the blood.

All this is, undoubtedly, I again repeat, probable, but not certain; but is there any greater degree of certainty in the opinion of those who regard all these derangements as the constant and necessary result of an acute inflammation of the stomach? I do not mean to say that this is never the case, and I am sure that no one would suppose me to entertain such an opinion. But, what I assert is, that often enough there is no proof whatever of the existence of this gastritis, that it can be admitted only by analogy, and that there is as much physiology in one hypothesis as in the other. If then, there are on all sides only more or less probable conjectures, it must be for the interests of the science that they should be all brought forward, provided that they are only given as conjectures, sufficiently founded, however, on facts and on physiological considerations, to entitle them to some share of attention. It appears to me quite certain that the theories of solidism in general, and that of irritation in particular, are insufficient to account for all the facts that have been observed. Under such circumstances what should we do? Take another position, and try what we shall gain by it." 672.

So far for acute diseases, the primary causes of which may, with some probability, be ascribed to the condition of the blood. Let us now see what the author has collected respecting chronic affections.

When a person is in the habit of taking too much food, and that containing a great deal of azote, while at the same time his body loses little by exercise or otherwise, his blood becomes very rich in fibrine, and he acquires a disposition to those inflammatory diseases already mentioned. This is often all that is observed. In other cases, however, under similar circumstances, a superabundant secretion of uric acid takes place in the kidneys,

and gives rise to the complaint called the gravel. It often happens, too, that at the same time that this acid exists in the urine in much greater quantities than usual, it occurs as a morbid secretion in several other parts of the system. It fills the joints, is deposited between the surrounding fibrous tissues, and is found in masses between the fasciculi of several muscles, in the subcutaneous cellular tissue, and even in the spongy extremities of the bones. I have found deposits of uric acid in all these parts simultaneously, in the body of a patient that died at *La Charité*, whose case is to be found described in the inaugural dissertation of Dr. Fauconneau Dufresne. In such cases, it appears that this uric acid, which thus appears in all parts of the body, and which we know from chemistry to be one of the most highly azotized proximate animal principles, is formed in excess in the blood under the influence of a strongly azotized diet; and that it is separated from it by its natural emunctory, as well as in the texture or on the surface of other organs. Accordingly, as Magendie remarks, the best way to put a stop to this superabundant secretion of uric acid is to change the diet of the person affected, and give him food containing as little azote as possible. Now, what is the prominent feature in all this? The modification in the composition of the blood by the food, and the production of disease in consequence. According then, to this view of the subject, there is something more in affections termed gouty, than a merely local irritation of an organ; the latter is only a secondary phenomenon, and we have other indications to fulfil than that of combating the pains in the joints by blood-letting. This theory is not incompatible with the fact that gravel and the different other deposits of uric acid are sometimes observed in persons who are far from living on such diet as I have just described; for we may conceive that independently of any influence of diet, the azote of the blood may become spontaneously predominant, and consequently a greater quantity of uric acid be formed: it is however well known that this is not the most common case.”* 674.

In the valuable work of Professor Dupuy on tuberculous affections, we find a fact that bears upon those just mentioned. He states that, in several cows, whose lungs presented abundant deposits of carbonate of lime, it was ascertained that the milk also had a much greater quantity than usual, of the same salt. Hence M. Andral thinks it probable that, at that age when phosphate of lime is frequently deposited in different organs, the cause may be found in superabundance of that salt in the blood. Under the influence of various agencies, as those of food and air, we find the blood altered, and therefore most probably the source of those diseases which arise under such circumstances. In times of scarcity, when a large portion of the population is forced to live on scanty or unwholesome provisions, dropsical dispositions have

* “It has been lately proved by the experiments of M. Edwards, that animals expire less azote during the cold season. Is not this one of the causes that may contribute to the superabundant formation of uric acid in cold, damp countries? This would be one secretion supplying the place of another.”

been always observed to prevail. Dropsy, however, often shews itself spontaneously. In the Clinique Medicale, the author has recorded the history of some dropsical patients, on the examination of whose bodies no appreciable alteration of solids could be detected; but, in whom the blood was nothing but serum—at least it was devoid of colouring matter throughout; and if it contained any fibrine it had lost the power of coagulating.

“The dropsy accompanying such a state of the blood may appear either in persons who were previously in good health, or in those exhausted by long sickness. The first sort seem to have been in a manner disposed to it, from their pale, dead colour, their soft flesh, and the habitual state of semi-infiltration of their subcutaneous cellular tissue. If we apply leeches to their skin, in place of true blood, we often observe only a reddish serum issuing from the bites; and as, in such cases, it is not possible for coagulation to take place, it is sometimes not without the greatest difficulty we can succeed in stopping it. Again, if we produce any irritation, there is but little appearance of redness; but a rapid accumulation of serum in the cellular tissue subjacent to the irritated part takes place. Thus, in this case, the result of the irritation is determined by the state of the blood; a very evident fact, and of some importance with respect to what may be drawn from it. Compare the bloodless skin of such individuals with the brown firm skin of stout healthy persons, with the bright rosy tint that marks the state of plethora; and the three, with the habitually yellow tinge in persons of a bilious temperament, as it is called, who are yet in good health; compare them, I say, and it will be evident that we cannot consider the fluid traversing the cellular tissue of the skin in these different individuals, as possessing the same properties, as containing the same principles, and as capable of acting similarly on the tissues; now, this fluid is, after all, but a part of the whole mass of the blood, and from the state of that part we can judge of the state of the whole.” 678.

In the disease termed scurvy, there is such an evident deterioration of the blood, as to prove a stumbling-block to the exclusive solidists in all times. In most instances the food, or air, or both, are bad before the phenomena of scurvy appear. In other cases the scurvy rises without antecedent bad food; but even in such instances, will it be denied that the blood is vitiated, though we cannot discover the primary cause? In a majority of cases we are ignorant of the primary causes that induce lesions on the solids themselves. If, too, we find that in scurvy there are numerous local affections, such as effusions of blood, tumefaction of the gums, ulcers, splenic congestions, dyspnoea and palpitations, &c. which local affections, though greatly differing from each other, are evidently dependent upon one general affection, is it not likely that scurvy is not the only disease thus circumstanced? Is it not, says he, natural to suspect that, in every case where we see a great many organs simultaneously affected in their nutrition—where they are also

simultaneously the seat of morbid secretions, more or less similar in their nature—and where these alterations appear in the same order and manner in numbers of persons—they are not merely a chance assemblage. It is more natural, he observes, to suspect that there is in the system a pre-existing morbid condition that reveals its existence by those various local affections—so that to disperse the latter, we must attack the former.

“Now, it is evident that this general morbid condition, of which every organ feels the influence, can hardly consist in any thing else than a modification of one or other of the two equally general systems, the sanguineous and nervous, which give life and support to each organ. Every one is acquainted, for instance, with the very striking features that characterize the scrofulous constitution, and every one must allow, on ever so little reflection, how impossible it is to confine such a state to any one particular part, whether the health still exist, or have been deranged by the alterations of nutrition taking place on all sides. In such cases, as there is no escaping the influence of the morbid condition which prevails over the whole system, and is present every where in the blood, every process of nutrition will be altered, and every secretion modified; every hyperæmia accidentally produced will present a peculiar character in its symptoms, progress, duration, termination, and in the effects of therapeutic agents on it; and every process of suppuration will furnish a fluid of equally peculiar characters. At the same time, there is not a single one of these alterations that may not be, in other cases, purely and simply a local affection; such is the case, for instance, with pulmonary tubercles. That, however, is precisely what it is important to distinguish; and I have already had occasion to establish this distinction when treating of tubercles.

I have attempted to demonstrate, above, that there must be an alteration in the qualities of the blood, when there is an alteration in the secretions.—In consequence of the vitiation of these latter, there appear different morbid states in the production of which the qualities of the blood bear an important part. This is what occurs when the liver, for instance, no longer abstracts from the blood in proper quantities the materials of the bile, they being either formed more abundantly than usual in the blood, or the liver, whether appreciably altered or not in its texture, having lost the power of secreting them. They then remain in the blood, and thence results a yellow tinge, of greater or less intensity, in the skin and several other tissues.—They may also escape from the blood with the elements of other secretions, and are to be found in the sweat, urine, lymph of the thoracic duct, fluid furnished by the mucous membranes, and that exhaled on the surface of the serous membranes. It even occurs sometimes, that the bile forms deposits in the parenchyma of different organs; where it is found accumulated, in the same manner as purulent collections are found in others. The resinous matter of the bile has sometimes been found in these various fluids and solids, but its yellow colouring matter is of much more frequent occurrence. When the bile has once *passed into the blood*, to use the common expression, (which

here again, happens to be consonant with the science,) is it not reasonable to admit that that fluid, being altered by its unusual mixture with the elements of the bile, can no longer exercise its regular influence over the different organs to which it is distributed? Hence must arise different series of symptoms, according; 1. to the state in which these organs are; and 2. according as the mixture of the bile, or, at least, of its elements, with the blood, is more or less intimate, more or less prolonged, and more or less abundant. I may, perhaps, be mistaken; but it seems to me that such a cause is very capable of producing some of those febrile states that have been denominated billious fevers, a generic expression answering to more than one kind of morbid state. In fact, let us consider, in a number of individuals, how the symptoms of this disease are grouped together, and how they succeed each other; let us observe the very remarkable yellow tinge of the face and conjunctiva, the slight icteric suffusion which sometimes affects more or less the rest of the cutaneous surface, the yellow tinge of the various excreted fluids, such as the urine, the mucus of the nasal fossæ, and the expectoration, the yellow coat of the tongue, and the very abundant billious evacuations that often take place both above and below at the same time; sooner or later after the appearance of this kind of billious plethora, different functions become disordered, and at last the fever is kindled. Now, where are we to suppose the cause of all this to reside? Is it in the irritation of an organ, of the digestive canal, for instance? The fact of the matter is, that the existence of such irritation can often be admitted only by hypothesis. Before the fever begins, and while there is yet only a billious state, to use the phrase of some writers, should we attempt to remove it by blood-letting? Experience has proved its inefficacy in such cases. If it was proved, on the contrary, that such medicines as evacuate the intestinal canal, when properly employed, restore the patient to health, we might explain their success by the greater activity they give the secretion of the liver, thereby producing a more complete depuration of the blood, and a cessation of the billious symptoms, as they are called. I have had opportunities of examining the bodies of different persons that had died of jaundice after suffering under the disease for several months; they had fallen by degrees into a state of marasmus, and at last went off insensibly, without having ever presented symptoms of irritation in any one organ. In many of these cases, I could not discover any appreciable lesion in the liver, or other organs. What, then, was the cause of the disordered functions, emaciation, and death? Was it the prolonged infection of the blood by the bile?" 684.

Every one knows what serious symptoms appear in animals when their ureters are tied—and in man when any cause suspends the excretion of urine. In either case the blood becomes changed, and we observe that assemblage of symptoms comprised under the generic term of adynamic, putrid, or ataxic fever. M. Andral appears inclined to support the antient doctrine of milk fever and milk dépôts, observed in females where the mammary secretion is interrupted or suppressed.—The following case is adduced from M. Graefe's journal.

"A miller's wife was delivered of a child, which she suckled herself. On the eighth day after her confinement, while in perfect health, the crash occasioned by the fall of a mill wheel frightened her so much, that her milk was totally suppressed. A state of constant febrile excitement then ensued, which degenerated into a tertian ague, during the course of which her legs became œdematous, and at the end of three weeks she became affected with anasarca and ascites. Three weeks after, as the dropsy did not diminish, recourse was had to paracentesis, and a bucket of fluid drawn off, which resembled whey, exhaled an acidulous odour, and, upon being boiled with dilute sulphuric acid, coagulated, and afforded a substance exactly resembling caseum. Six weeks afterwards, the peritoneum being again filled, a second puncture was made, which gave issue to a fluid of a greenish yellow, without the least trace of caseum. The patient recovered." 686.

The above and other facts, he thinks, appear to demonstrate the possibility of the formation of one of the most important principles of the milk in other parts of the system, besides the mammæ. In the case just quoted, the succession of the symptoms was very remarkable. A mental impression suspends the lacteous secretion. This suspension is succeeded by ague—and this again by dropsy, the fluid of which contained a matter resembling caseum.

The author then adverts to the influence of the composition of the fluids over that of the secretions, and reminds the reader that Magendie, by changing the food of different animals, and consequently modifying their blood, made the urine and the bile of some of the carnivorous animals resemble those of the herbivorous.

"Thus, then, when the nature and the proportion of the constituent principles of the blood have undergone some of the changes already described, the result must be more or less appreciable modifications in the qualities of the secreted fluids, which may play a more or less important part in the production of certain morbid states. Thus it is easy to conceive, that if many of the alterations in the saliva, bile, urine, serum, &c. are the direct result of a lesion of the organ in which these fluids are elaborated, there are others, independent of the state of the secreting organ, and connected with an alteration of the common fluid from which they all emanate. If that is the case, we may go still farther; and since it appears that most of the morbid productions are deposited in the cellular tissue, in place of the small quantity of serum that usually lubricates it, we may ask if they also may not be accounted for by a vitiated state of the blood; without, at the same time, meaning to assert, as I have already explained, that many of them may not likewise result from a purely local alteration in the part where they are developed. In fact, what are these accidental productions but substances of various descriptions which are deposited in the framework of each organ, that is to say, in its cellular tissue, in place of its natural secretion? Now, we can only conceive two reasons for their appearance; either the blood on its arrival at an organ is wrongly elaborated by the nutritive parenchyma of that organ, or else it is altered before its arrival there. But, there are many cases in which

there is no proof of there having been any thing wrong in the structure or action of the organ before the appearance of the morbid deposit ; and we may with especial reason doubt the previous existence of any fault in the part, when a great many organs simultaneously become the seat of similar accidental productions." 689.

We have now brought this important chapter of M. Andral's work to a close. By many, the humoral pathology of the author will be treated with contempt—by others it will be read with interest, and, we think, with profit. It is not improbable that a practical basis will be laid, for the distinction of fevers dependent on the state of the blood from those where the nervous system is the primary seat of the disease. In the large and important class of malarious fevers, it is impossible not to suppose that a poison is taken into the circulation, even if the first impression of that poison be evinced in the sentient system. Thus a certain dose of malaria, whether from the earth or from a crowded population, vitiates the blood and shocks the nervous system, inducing a train of exertions in the constitution, whether in periodical paroxysms or uninterrupted struggles, till the poison is exhausted, or till it destroys the living machinery of the system. But, however the cause of fever may act in the first instance—whether on the solids or on the fluids, we cannot but admit that the mass of blood generally evinces some kind of deterioration, and that this vitiation plays in the drama of the malady, a very important part.

IV.

A TREATISE ON THE MINERAL WATERS OF HARROGATE AND ITS VICINITY. By *Adam Hunter*, M.D. &c. Small octavo, pp. 138. 1830.

THE experience of ten years in the vicinity of Harrogate, during which great numbers of people have taken the waters under Dr. Hunter's directions, renders him every way calculated for the present undertaking, the object of which is, to afford a complete analysis of all the mineral springs hitherto discovered there, which are either medicinally important, or remarkable for their situation or contents, together with succinct directions for their use. Although we do not question the medicinal powers of the Harrogate waters, we doubt the soundness of the conclusion, that—"no stronger proof can be afforded of the great efficacy of the waters, than the resort of such a number of visitors." This is precisely the proof which St. John Long and his disciples (for that is a more proper designation than patients) offer for the truth of his miracu-

lous cures—the efficacy of his wonder-working liniment. What happens to a doctor may happen to a watering place. Many have fancied themselves cured by the waters, when it was to change of air and scene, together with exercise, that they owed their recovery. But still they would praise the spot where health was obtained, and recommend it in all diseases among their neighbours.

We must pass over the history of these medicinal springs, which may amuse a dull hour while loitering at Harrogate, but which do not require notice here.

These springs are now become so numerous, that it is necessary to divide them into four classes.

“Class I. Springs impregnated with sulphuretted hydrogen gas and saline matter.

II. Saline chalybeate springs.

III. Pure chalybeate springs.

IV. Springs containing earthy salts, with little iron and no sulphuretted hydrogen gas.” 23.

1. *Old Sulphur Well.* This, of course, is in the first class. It is perfectly clear—temperature about 49° —smell highly sulphureous—taste sulphuretted and strongly saline (a mixture of flavours to which the palate is soon reconciled)—deposits a white sediment on standing, and loses its smell. By the various tests employed, it was ascertained that this water contains chlorine, in combination with the bases of lime, magnesia, and soda—no sulphuric acid, no iron.

2. *Oddy's Saline Chalybeate, or Cheltenham Spring.* This spring is considered so important in its nature and effects as to be placed in a class by itself. It was discovered in the Autumn of 1818. When taken from the spring, it is transparent and has a sparkling appearance—taste distinctly chalybeate, and considerably saline. Ten years ago, Dr. Hunter published some account of this water, and suggested the diseases in which it would be beneficial. The subsequent experience of the author has confirmed the opinions then broached. Dr. H. combats certain positions laid down by Dr. Scudamore; but these controversies we shall pass over. The imperial gallon of this water contains—

Of Muriate of Soda	360.43
Muriate of Lime	26.4
Muriate of Magnesia	11.88
Sulphate of Lime	2.23
Carbonate of Lime	8.04
Carbonate of Magnesia96
Oxide of Iron	2.88
Residue, consisting chiefly of Silica48

413.35

The following passage we shall insert.

"It may be taken with proper management either as a tonic, an alterative, or aperient, and therefore becomes more especially useful in a wide range of complaints connected with biliary derangement and atony of the stomach. There are many who, after having taken the sulphur water at Harrogate, are recommended to proceed to Cheltenham, a journey unpleasant to some and inconvenient as well as expensive to others. This step, so far at least as concerns the relative properties of the waters, is evidently unnecessary, and may be entirely superseded by a similar course of this water upon the spot."

3. *Chalybeate Springs*. The old or sweet spa, as it is called, has for some years been the principal chalybeate used at Harrogate. Although there are not more than two grains of iron in a gallon of this water, it is a perfect wonder-worker in the cure of diseases. The following testimony, carefully re-printed by Dr. Hunter, will put *Singing Long's* liniment to the blush.

"As to the virtues of this spring, there is scarce any disease incident to mankind wherein its inward or outward use may not be of service. I have been an eye witness of its effects nearly forty years and I have not neglected drinking it myself any one season all that time; and though I am now in my 66th year, yet I am strong and vigorous, free from the complaints of old age. But because a general and just commendation of this spring will not be satisfactory, without condescending to enumerate the diseases wherein it is proper. It is good, therefore, to restore a lost Appetite and Digestion, to mitigate the Scurvy, correct all *acid Humours* in the Lympha, Blood, *nervous* and pancreatic Juices. It cleanses the Kidnies and Ureters of Slime, Sand, Gravel and *great Stones*, and is very assistant in curing Ulcers in those Parts. It removes the Hyppo's Melancholy, opens Obstructions of the Lungs, Liver, Spleen, Mesentery and Glands. It purifies the Blood, and renders the Spirits in the Body more *cheerful and lively*. Several short-winded Asthmatic, weak and lame People, have had their Lungs and Limbs restored to their former strength and usefulness. It relieves inveterate Head-Achs, especially if at the same time you use the Cold Bath. It is also very serviceable in the Gout, by restoring the use of lame Hands, Knees, Legs and Feet. It *revives the Memory*, clears the Brain from viscous Humours, and helps the Eyes by drying up Rheums. It relieves sharpness of Urine, Strangury and Dysury, if there is no large Stone or other stoppage in the urinary passages. It corrects Acidity in any part of the Body; as in the Heartburn, Belchings, Sourness at the Stomach, Gripes, Cholic, and Borborigmos. It opens the Breast and Lungs, *cuts tough Flegm*, promotes Expectoration, and has often been successful in the Cure of Blood-spitting, Hectic Fever, too great Heat and Dryness of the Skin and Body."* 66.

"This (says Dr. Hunter) is a tolerably fair specimen of *a few* of the miseries of our ancestors which were cured or alleviated by the use of this water."

* Dr. Neal, of Leeds.

Speaking of the **TEWIT WELL**, Dr. Hunter informs us that it was the first of the mineral waters discovered at Harrogate, and was frequented 260 years ago, by "innumerable herds of people." Volumes have been written upon the surprising cures performed by it—cures that are stated to have been "the most remarkable filed up in the *authentic records* of physic." Yet, strange to say, although its waters run "pure, translucent, and unimpaired, it is now almost entirely neglected." We are a little surprised to find so sensible a man as Dr. Hunter fill up so much of his book with idle stories, published one or two centuries ago, respecting the miracles performed by the Harrogate Waters.

4. The *Saline Springs* occupy only two or three pages of our author's work. Dr. Garnett states that the water of the **CRESCENT OLD WELL** contains 13 cubic inches of sulphuretted hydrogen gas, and two grains of carbonate of iron to the gallon. It appears, however, that the water contains no carbonate of iron.

The sulphur and saline waters of Harrogate, especially when combined with the external application of the former, are the most important of the springs. We can only afford space for one more extract.

"The Sulphur and Saline Waters are taken with greatest advantage at the well, in the morning before breakfast, using gentle exercise between the intervals of drinking. A glass containing half a pint should be taken, and repeated once or twice at an interval of fifteen minutes or half an hour. In a great majority of cases this will be found sufficient. But when the bowels are more than usually constipated from previous disease or any other cause, a larger quantity is required, and two or three pints may be taken not only with safety but advantage. These waters were used by all ranks in former times, and by the lower orders to this day, in larger quantities than is here recommended. The cures have sometimes been very surprising, but the bad effects arising from such immoderate doses have likewise been sufficiently serious.

Some practitioners are accustomed to recommend a mercurial, or other aperient pill, to be taken during the whole course of the sulphur water; however beneficial this practice may be at the commencement, I consider it in most instances unnecessary after the action of the water is established, and the system become reconciled to its effects. By those using the pure chalybeate water, aperient medicine is frequently required during the whole course. As a general rule, the aperient taken should coincide as nearly as possible with the intention of the water, and the removal of the disease.

There are many who suffer considerable uneasiness from the quantity of cold water taken into the stomach. The most delicate invalids, and those, on the other hand, to whom pure water in any form is a rare beverage, are the greatest sufferers from this cause. To obviate these distressing sensations, the doses of the water should either be small, and repeated at longer intervals, or a portion of it made hot, should be added to each draught.—

This is found to be more frequently necessary for those using the saline chalybeate. As these waters lose part of their medicinal powers by being heated, it is better to add a portion of the hot water to the cold, at the moment when it is taken, than that the whole should be exposed to the action of fire. When this is found insufficient, a teaspoonful or two of some light spirit or aromatic tincture may be added to the water." 86.

Dr. Hunter has appended many judicious remarks on the method of employing the Harrogate waters, and the rules of Hygiene to which invalids should submit, if they expect to derive full benefit from the watering-place in question. These directions and remarks are only calculated for non-professional invalids, and need not be noticed in a medical journal.

V.

ESSAYS AND ORATIONS. By Sir *Henry Halford*.

1. ON TIC DOULOUREUX.

AMONG the Essays and Orations lately published by the distinguished Baronet, the first (not previously printed) is on Tic Douloureux, in which some peculiar doctrines are broached respecting the pathology, or rather the etiology of that terrible disease. The principle symptoms are enumerated in Sir Henry's usual elegant language, but these we may pass over. The experienced author believes that the milder forms of TIC, usually denominated neuralgiæ, and seated in various nerves of the body besides those of the fifth pair, generally depend on some derangement of the digestive organs, and usually give way to treatment directed to those sources; but the severe TIC of the trigemini does not yield to any particular treatment with which we are acquainted, though it may be mitigated by attention to the general health. That the seat of pain is not the seat of disease, is proved by the failure of attempts to cut off the communication of the suffering nerves with the brain.

"May I venture (says Sir H.) to throw out an opinion, founded on the observations with which my experience has furnished me, that the disease is connected with some preternatural growth of bone, or a deposition of bone in a part of the animal economy where it is not usually found, in a sound and healthy condition of it, or with a diseased bone?"

The following cases have occurred to me, and seem to give a degree of probability to this surmise; and I throw it out for the consideration of the

profession, in order that a number of facts may be collected from which a safe inference at length can be drawn.

I. A lady, forty years of age, suffered under the violent form of tic douloureux, at Brighton, notwithstanding the careful attention and skill of a very judicious physician there. On returning to town it was observed that the rending spasms, by which the disease is marked, were frequently preceded by an uneasiness in one particular tooth, which exhibited, however, no signs of unsoundness; but the constancy of this symptom was enough to justify the extraction of the tooth in this instance (though the failure of this expedient to afford relief in general does not encourage recourse to the operation,) and, on its being drawn, a large exostosis was observed at the root of the tooth; and the lady never suffered more than very slight attacks, and those very seldom afterwards.

II. The Duke of G. was attended by Dr. Baillie and myself for six weeks, under this disease, in its most marked and painful form, without deriving benefit from our prescriptions. At length we thought it best to advise him to repair to the sea-coast, in hopes of renovating his shattered system by taking bark there. After he had sojourned a month by the sea-side, a portion of bone exfoliated from the antrum Highmorianum, and the Duke recovered immediately, and has never suffered the disease since. The bone had been hurt probably by a fall from his horse which the Duke had met with some months before.

III. The late Earl of C. underwent martyrdom by this disease, and excited the warmest sympathy of his friends by the agonies he sustained for many years. He submitted to the operation for the division of several branches of the fifth pair of nerves repeatedly, by Sir Edward Home and by Mr. Charles Bell, without obtaining more than mere temporary relief. At length he was seized by apoplexy, and lay insensible for some days, and in great peril from the attack, but finally recovered. After the apoplexy, the paroxysms of the tic douloureux became less frequent and less severe, and were administered to satisfactorily by an ingenious physician, who wrote his inaugural exercise on the disease. For the last year or two of his life his lordship had ceased to suffer from the tic, and died at an advanced age without any marked malady. His head was not examined after death, and therefore we are left to conjecture only what might have been the immediate cause of his former sufferings. Whilst I attended him he underwent repeated exfoliations of the alveolar processes of the teeth, which I thought occasioned his torment; and to account for the cessation of the complaint, I supposed that these efforts to throw off diseased portions of bone might have ceased, or that the apoplexy had disqualified the nerves for suffering so exquisitely; but there might have been besides, as some later instances have made probable, disease in the bones of the head.

IV. The late Dr. P. fell a sacrifice to this dreadful disease, after sustaining its tortures for some years, with a constancy which attracted all our pity and esteem, and died at last under apoplexy.

No assistance which the experience of any of us could afford him, gave him relief or controlled the violence of the attacks. On examining his head after death, there was found an unusual thickness of the os frontis, where it had been sawn through above the frontal sinuses, and at its juncture with

the parietal bones. There was discovered also in the falciform process of the dura mater, at a little distance from the crista galli, a small osseous substance, about three-eighths of an inch in length, rather less in breadth, and about a line in thickness. The vessels of the pia mater were turgid with blood, and about an ounce of fluid occupied the ventricles. I lamented that the frontal sinuses had not been examined, for I remember he replied to a question which I once put to him, as to his ever having experienced any suppuration within any bony cavity, that he had twice suffered suppuration in the frontal sinuses.

Dr. P. had submitted with great patience to a division of several branches of the fifth pair of nerves, under the judicious operation of Sir Astley Cooper, who, on my mentioning to him the notion I entertained of the cause of tic douloureux, was so obliging as to shew me the skull of a person who had died of this disease in the country. The internal surface of the frontal bone is a perfect rock-work." 44.

The foregoing cases fell under the immediate observation of the author. The following was communicated to him by a physician of eminence in the country. The patient was a lady advanced in life. At the age of 65 she was attacked with exquisite pain in the branches of the fifth pair of nerves, on the right cheek, nose, and temple, the tortures of which were unbearable. For nearly ten years the paroxysms continued to recur with more or less of intermission; and the operation of dividing the supra-orbital branch of the nerve was succeeded by an alleviation of pain during five months. They then returned. Various plans of treatment were employed, but with little success. Carbonate of iron and valerian gave most relief. Of the former she took *twenty-seven pounds*—a quantity that might have satisfied even our good friend Dr. Elliotson. Her intellect was unimpaired, and her general health did not appear affected. She was free from pain during the last six months of her life, which terminated in apoplexy.

"The head was opened after death, and an enormous thickening was observed of the frontal, ethmoidal, and sphenoidal bones, in one part to the extent of half an inch; and the anterior lobes of the brain were curiously moulded and indented by the thickened bone. There was thickening also of the whole of the cranium, but not to so great a degree any where as in the parts which have just been named." 46.

The paper terminates with some observations on sympathy which we need not analyze. Sir Henry's observations offer a strong probability that **ONE** cause of severe neuralgic affections may be attributed to bony excrescences or osseous disease. But when we reflect on the immense mass of similar diseases of bone, where no **TIC DOULOUREUX** is the result, we must still deplore the darkness in which we are placed respecting this terrible disease!

II. POPULAR AND CLASSICAL ILLUSTRATIONS OF INSANITY.

This paper, which was also read at the College of Physicians, is prefaced by Shakspeare's test of madness.

“ ———— Ecstasy !
 My pulse as yours doth temperately keep time,
 And makes as healthful music. It is not madness
 That I have utter'd : bring me to the test,
 And I *the matter will re-word, which madness*
Would gambol from.”

HAMLET, Act. iii., Scene 4.

To prove the correctness of the poet's test, Sir Henry adduces a case which occurred in his own practice, in the month of January, 1829.

“ A gentleman of considerable fortune in Oxfordshire, about thirty-five years of age, sent for his solicitor to make his will. He was in habits of strict friendship with him, and stated that he wished to add five hundred pounds a year to his mother's jointure, if she got well, she being then (to the knowledge of the solicitor and himself only) confined as a lunatic ; to make a provision for two natural children ; to leave a few trifling legacies ; and then, if he died childless, *to make him, the solicitor, his heir.* His friend expressed his gratitude, but added that he could not accept such a mark of his good opinion, until he was convinced that it was his deliberate judgment so to dispose of his property, and that decision communicated to him six months afterwards.

In about six weeks time the gentleman became deranged, and continued in such a state of excitement for a whole month, (during which he was visited constantly by Sir George Tuthill and myself,) as to require coercion every day. At the expiration of that time he was composed and comfortable. But his languor and weakness bore a proportion to his late excitement, and it was very doubtful whether he would live. On entering his room one day, to my question how he found himself, he answered,—‘ Very ill, Sir ; about to die ; and only anxious to make my will first.’ This could hardly be listened to under his circumstances, and he was persuaded to forego that wish for the present. The next day he made the same answer to the same question, but in such a tone and manner, as to extort from common humanity, even at the probable expense of future litigation, an acquiescence in his wish to disburthen his mind. The solicitor was sent for, and, having been with him the preceding evening, met us, at our consultation in the morning, with a will prepared according to the instructions he had received *before the attack of disease, as well as to those given the last night.* He proposed to read this to the gentleman in our presence, and that he should witness the signature of it, if we were satisfied that it expressed clearly his intentions. It was read, and he answered, ‘ yes,’—‘ yes,’—‘ yes,’ distinctly to every item, as it was deliberately proposed to him. On going down stairs with Sir

George Tuthill and the solicitor, to consider what was to be done, I expressed some regret that we, the physicians, had been involved in an affair which could hardly be expected to terminate without an inquiry in a court of law, in which we must necessarily be called upon to justify ourselves for permitting this good gentleman, under such questionable circumstances, to make a will. It occurred to me then, to propose to my colleague to go up into the sick room, to see whether our patient could *re-word* the matter, as a test, on Shakspeare's authority, of his soundness of mind. He repeated the clauses which contained the addition to his mother's jointure, and which made provision for the natural children, with sufficient correctness; but he stated that he had left a namesake, though not a relation, ten thousand pounds, whereas he had left him five thousand pounds only; and there he paused. After which I thought it proper to ask him, to whom he had left his real property, when these legacies should have been discharged,—in whom did he intend that his estate should be vested after his death, if he died without children? 'In the heir at law, to be sure,' was the reply. Who is your heir at law? 'I do not know.'

Thus he 'gambolled' from the matter, and laboured, according to this test, under his madness still." 59.

This gentleman died intestate, of course, four days afterwards. The "gambolling" above-mentioned, was no doubt a sufficient test of some mental aberration at the time; and we think there can be as little doubt that the gentleman, on close examination, would have been found incoherent on many other subjects besides that of the WILL.

After a well-merited eulogy on Shakspeare, as the poet that holds up to his readers a faithful mirror of manners and of life, Sir Henry informs us that it has twice occurred to him to find the portraits of madness, as drawn by Horace, exemplified to the life.

"One case, that of the gentleman of Argos, whose delusion led him to suppose that he was attending the representation of a play, as he sat in his bedchamber, is so exact, that I saw a person of exalted rank under those very circumstances of delusion, and heard him call upon Mr. Garrick to exert himself in the performance of Hamlet. The passage of Horace to which I allude is in the second epistle of the second book, and is the more curious as it specifies distinctly that it was upon this one point only that the gentleman was mad. I will give you the passage:

———— Fuit haud ignoblis Argis,
 Qui se credebat miros audire tragædos,
 In vacuo lætus sessor plausorq̃æ theatro;
 Cætera qui vitæ servaret munia recto
 More; bonus sane vicinus, amabilis hospes,
 Comis in uxorem, posset qui ignoscere servis,
 Et signo læso non insanire lagenæ:
 Posset qui rupem et puteum vitare patentum.

&c. &c.

Epist. lib. ii. 2. 128.

In another well-known case, which justified the Lord Chancellor's issuing a writ *de lunatico inquirendo*, the insanity of the gentleman manifested itself in his appropriating every thing to himself, and parting with nothing. When strongly urged to put on a clean shirt, he would do it, but it must be over the dirty one; nor would he put off his shoes when he went to bed. He would agree to purchase any thing that was to be sold, but he would not pay for it. He was, in fact, brought up from the King's Bench prison, where he had been committed for not paying for a picture valued at fifteen hundred pounds, which he had agreed to buy; and in giving my opinion to the jury, I recommended to them to go over to his house, in Portland-Place, where they would find fifty thousand pounds' worth of property of every description; this picture, musical instruments, clocks, baby-houses, and baubles, all huddled in confusion together, on the floor of his dining room. To such a case what could apply more closely than the passage—

Si quis emat citharas, emptas comportet in unum,

Nec studio citharæ, nec Musæ deditus ulli;

Si scalpra et formas, non sutor; nautica vela,

Aversus mercaturis: delirus et amens

Undique dicatur merito.

HOR. SAT. LIB. II. 3. 104.

I need not add that the jury found the gentleman insane." 63.

Human nature, in fact, has been always the same; and the descriptions of it, as drawn by the ancient poets are, at this day as correct as when they were originally drawn. Sir Henry is of opinion, that if the physician were to collect and apply the brief notices of various disorders, which have been thrown out by the great poets of antiquity, "he might not only illustrate the truth of the descriptions drawn by those accurate observers of Nature, but *derive from them some useful hints to assist him in his own observation of disease*. We much doubt whether the time consumed in searching out these faithful descriptions of diseases among ancient poets, would be so well disposed as in observing the originals themselves. The physician has the same senses and means of recognizing diseases as the poets had—why, then, have recourse to the copy, when the original portrait is before him? We are ready to grant, however, that these illustrations and researches are elegant and dignified pursuits for a leisure hour, and especially where the mind is strongly imbued (as is Sir Henry Halford's) with classical literature and modern knowledge.

VI.

MEDICO-CHIRURGICAL NOTES AND ILLUSTRATIONS. PART I. ON SOME DANGEROUS AFFECTIONS OF THE THROAT WHICH INDUCE SUDDEN DEATH BY SUFFOCATION. ON STRICTURES OF THE ŒSOPHAGUS, AND THE DANGERS OF THE BOUGIE. ON THE CURE OF THE FALLING DOWN OF THE BOWEL IN GROWN PERSONS. ANOMALIES IN RUPTURE OPERATIONS, &c. &c. &c. By *R. Fletcher*, Esq. Surgeon to the General Infirmary at Gloucester, &c. 4to, pp. 146. Four lithog. Plates. Longman's, London, 1831.

THERE are two very opposite descriptions of writers and writings in medical science, and each are of value in their way. We have plain and practical authors with little pretension to theory or principle, and but slight powers of inductive or deductive generalization; and we have men of more speculative talent, who delight in deducing laws from facts, and who have ever been the founders of our theoretical systems. It would not be difficult to prove that if either party were exclusively predominant, the world would be the loser. If facts were deficient, theories would be worse than they are; and if theories were abolished, facts would be of comparatively little service. To expect in the generality of men a happy combination of patience in observing facts with consummate ability, in drawing conclusions from them, is to look for that which the wise Author of Nature has determined should not be. It is amusing to observe the feud which rages and has ever raged between the two classes of persons to whom we have alluded. From the dawn of science they have ever been at variance, and have ever striven for rule and mastery. Yet we find them in much the same position now, as they occupied some forty centuries ago; a plain proof to our minds, since every thing is ordered for the best, that they always will hold the same relative situation, and that the interests of mankind require that they should do so.

The author of these "Notes and Illustrations" is of the practical school, an empiric rather than a dogmatist. He tells us that "he has no other to offer than the truth." If he gives us so much we shall feel well satisfied, for in these miraculous days of intelligence truth has grown somewhat too scarce. Perchance she is Tory in her notions, and will not march with the intellectual regiment of *sans-culottes*.

The present work, then, is not ushered in with high pretensions, but to practical surgeons the observations which it contains will be useful, and to all they will be interesting. Mr. Fletcher apologizes for the

colloquial manner in which they are related, and hints that some domestic affliction has induced him to give them to the public as they are. We shall put our readers in possession of what is valuable in the volume, and we doubt not that Mr. Fletcher will derive satisfaction from knowing that his reflections in the chambers of the dying and the dead, are borne by the mercurial speed of the periodical press to every corner of the old world and the new. As we have lately devoted some space to the consideration of "calculous disorders," we shall commence the present article with a chapter on failures in lithotomy, although it is by no means the first in the work.

ON FAILURES IN LITHOTOMY.

It is an excellent plan, as Mr. F. observes, for a surgeon, on losing a patient after operation, to imagine that something in that operation was amiss. If he does not do so, if he be of the temper of Candide, and lay the flattering unction to his soul that he did what man could do, and that his patient died simply because he could not live, in all probability that surgeon will never improve. After every unsuccessful operation we must first imagine that some step was wrong, and secondly, we must endeavour to determine where the error lay, and how it may hereafter be avoided. This philosophic rule is especially valuable when applied to lithotomy, for so much in its performance is done in the dark, that frequently the operator alone can determine in what he has erred, and even he will be misled unless he exercise a careful analysis and induction.

The invention of lithotrity and the introduction of the forceps for extracting small calculi will undoubtedly constitute an era in surgery, and although we do not imagine that lithotomy will be altogether superseded, yet we do believe that when these two improvements are properly appreciated and their consequences fairly followed out, we do believe, we say, that when this is accomplished, lithotomy will become much less frequent than it is. This need not prevent us from endeavouring to ascertain, as far as that is possible, the reasons for the acknowledged fatality of the operation; on the contrary, it is imperative upon us to endeavour to learn what can be learnt upon the subject, if practical experience is to be more scarce. We hailed with pleasure the appearance of Mr. Brodie's Lectures on Calculous Disorders, and to our analysis of those lectures in the last number of this Journal we refer, for that distinguished surgeon's views of the causes of death from lithotomy.—Our readers then will find, or will recollect, if they have read the article to which we allude, that Mr. Brodie considers peritonitis as a much less frequent cause of death than it is commonly considered to be. His

observations and dissections have led him to the opinion, that fatal inflammation and sloughing of the cellular membrane of the pelvis, giving rise, it is true, to peritonitis towards the close, is infinitely more common. We shall see how far the conclusions drawn by Mr. Fletcher tally with those of Mr. Brodie. With the following sentiment we perfectly agree, but alas! how Utopian to conceive that men will publish their failures. Why, nine out of ten have not even the honesty to attach only the proper degree of merit and value to their success!

“If hospital surgeons, who do this operation most frequently, were to report the failures they have witnessed, and the circumstances which attended them, much might be done towards abbreviating the sufferings, and preserving the lives of patients. The history of failures is, perhaps, more valuable than that of successful cases. Dissection will trace the causes of death, with the errors committed, and point out how, in future, they can be avoided, so as to lead to more precision, and certainty of a successful termination. A broken down sufferer of many years, who has made up his mind to submit to a terrible operation, the climax of pain and punishment, relying on our skill, judgment and humanity, for its being safely done, should be considered as a patient of the whole profession. He has placed life, his last and most precious stake in its hands; and every member, whose experience allows him an opportunity, should not hesitate to contribute his mite to its preservation, by recounting, as warnings, the failures that he has beheld.” 81.

Mr. Fletcher starts with deprecating a race against time in the performance of the operation. He might have saved himself that trouble. If men imagine that they can operate with rapidity and dexterity, they will endeavour to do so to the exclusion of some other considerations, so long, at least, as vanity shall continue a component of human nature. The next error against which Mr. Fletcher directs his censure is the employment of violence.

“It will be found that their main source is violence, generally, though not always from the forceps, on whose blade should be engraven the motto, ‘Gardez bien.’ This violence is often unnecessary, for it is better to cut, than to bruise and lacerate, in the extraction of large calculi; to cut the bladder again and again, than to tear it open. On this principle was derived the great success which attended the operations of that celebrated lithotomist, Klein.

That it is the forceps which is the great agent of destruction, in the larger number of cases, is clear, from looking carefully over the sizes of the stones extracted by the late Mr. Martineau. He encountered no very desperate cases,—he was thus as fortunate as he proved skilful.

Out of eighty-four cases, the two largest stones weighed each four ounces only, and one of these patients was lost. Why? Because the forceps had too much to do in the extraction. When the stones were small, which

in his great experience was remarkably the case, the forceps had very little to do. Hence his extraordinary success, and the detection of the true source of destruction.

Mr. Martineau, therefore, could never be justly quoted as an authority for violence in lithotomy. He seldom had occasion, from the size of the stones, to employ it; but when he had, he lost his patients like other surgeons.

There are, however, other sources of injury besides the forceps. Such as I have seen, from that and other causes, with all the failures which have occurred within my observation, shall now be faithfully narrated."

CASE I. FATAL ABSCESS OF THE PELVIS FROM A LACERATED BLADDER BY THE FORCEPS.

"A Sexagenarian from the country, tall, and very little worn in constitution by the presence of a large stone, which he had carried some years in his bladder, came under my care to have it removed. It was my maiden operation, and I was surrounded by experienced friends. From repeated examinations made in the rectum, and by sounding, it was evident that the stone was beyond a common size, and preparations were made accordingly; the muscles were fairly and freely cut, and the prostate gland divided by a full sized gorget. The stone-breaker was at hand. It was not difficult to lay hold of such a stone; the difficulty was in bringing it through its narrow channel with safety to the patient. I made gentle efforts in the proper direction, put my finger upon it between the blades of the forceps, in the rectum, and this examination assured me that it would never pass, without more force and laceration than was consistent with the patient's safety, and with my notions of the mode in which this operation should be performed. In vain was the opening into the bladder enlarged by the bistoury, and a more powerful exertion made;—the stone would not pass.

I looked round for the stone-breaker, I begged that it might be handed to me. 'My dear Sir,' with a pinch on the elbow, 'try again,' was the reply on one side. I did so, reluctantly; another more powerful, though unsuccessful pull was the consequence, and again I entreated imploringly for the stone-breaker; 'Nonsense, don't be afraid, I have used ten times more force than you now do,' was the answer from another side; (it was true, but his patients rarely survived;) one effort more, indeed, succeeded in bringing forth the stone, which was of the mulberry kind, and weighing about five ounces and a quarter, and after the patient had been upon the table three quarters of an hour. The last adviser was not a little proud of so speedy a proof of the soundness of his advice,—but he should have waited the result.

The shock of the operation the hardy veteran sustained; its immediate danger passed away,—but he soon fell off, and ultimately sunk under irritative fever, at the end of the fifth week from the date of the operation.

The irritation was a large abscess in the cellular membrane, between the bladder and rectum, and which doubtless arose from the injury done to the prostate gland and neck of the bladder, which were in rags, or fringes, bedewed with pus. The result of the foregoing case was of service, though

not to the patient. I became particularly cautious of committing the slightest violence beyond what was absolutely necessary, rather cutting even the bladder, than allowing of any force in extracting the stone from it; and the effect was, that the next nineteen operations were successful ones. The stone, in this case, was too large to be removed with certain safety, though there would have been more chance of success with less violence. We may call for, as was done in the foregoing case, and then look at stone-breakers, —but to use them is, perhaps, quite a different matter. Mr. Earle's is the best. The lithontrite appears to be inadmissible, from its want of power over large stones." 83.

CASE II. FATAL PERITONITIS FROM A LACERATED BLADDER.

In the following case Mr. Fletcher conceives that violence was the cause of death. The preceding case was the first of his which proved fatal, and this was his second and ultimate loss. The patient was a young man, twenty-two years of age, and a good subject, for no tendency to organic disease could be detected in him. The following note may be looked on as explanatory.

"No man should cut for the stone when he is ill; the feeling of lassitude, weakness, and want of decision, will creep into the operation. A slight oversight in the design, or defect of vigour in the execution, are quite enough to give a fatal turn to its termination. To-day I was not sufficiently alert, the gorget was overlooked, it did not cut well close to the beak, nor was it broad enough for a large adult, so that the right side of the prostate was not completely divided. The muscles too, in the deep hollow between the ischium and anus, were not sufficiently or decidedly cut, so that a straitened channel was left for the exit of the stone. Both these original errors were amended, though feebly and inefficiently,—illness was at the bottom of it,—the division of the right side of the prostate was completed, and the bridles of muscles touched with the knife. These subsequent corrections were not enough to prevent more violence being done than should be permitted in this operation. It was ten minutes before the stone was extracted; and though I have seen infinitely more rough exertion employed, without harm in the result, yet do I fear for this poor fellow." 84.

The stone weighed four ounces. In spite of early attention and active treatment the patient died of peritoneal inflammation five days after the operation. The angle of the left division of the right side of the prostate gland was torn, shewing that its division by the prostate had not been quite accomplished. There was some pus in the cellular membrane in its neighbourhood, and the small intestines were glued together by active peritoneal inflammation.

CASE III. IMMEDIATE DEATH FROM EXTRAORDINARY VIOLENCE IN USING THE FORCEPS.

A healthy, middle-aged man submitted to all the preliminaries of the operation with an air of great determination. The operator made his

incisions well, reached the bladder, felt the stone, and quickly introduced a large pair of forceps. Difficulty was experienced in getting them in, a large stone was grasped, and now still more difficulty was encountered in getting them out. Violent efforts were made, great violence was used, and that not apparently in the best direction, the tugging was maintained for nearly two hours, and then a stone weighing more than five ounces was extracted. During the earlier part of the operation the patient continued to utter shrieks of agony, but at length they sank into a moan, and when the stone was shewn him it was doubtful if he saw it. He expired in a few minutes after being carried to his bed. The body was not examined.

“Upon looking at the gorget, I thought it certain, that it could not, from its small size, have completely divided the left side of the prostate, moreover, it cut only on one side, so that room was lost on the right side of this gland. The operator too, having seized the stone, appeared to be unwilling to part with it, fearing it would be difficult to find again; although he must have felt a stricture or binding upon it, which would require great force to overcome. He appeared to be mentally whispering to himself, ‘if I let it go I may not get hold of it again, and it shall come now it is in my power,’ and with this wrong understanding of the principles of this operation, the fatal pulling was continued.” 86.

If there is any considerable sense of stricture at the prostatic opening when the stone is to be extracted, the latter should be relinquished, the extent of the incision ascertained, and the latter enlarged according to circumstances. After all the presence of a large stone is unfortunate.

CASE 4. FATAL RESULT FROM INJURIES TO THE BLADDER IN ATTEMPTING TO EXTRACT THE REMNANT OF A STONE.

A young man, eighteen years of age, had for some years been labouring under the symptoms of stone in the bladder, and placed himself under a good operator for its removal. The operation was done well, but unluckily the stone broke in the gripe of the forceps, and after a long trial of means for its extraction the fragment of stone was left in the bladder. For a few days there were merely some slight pains about the loins, and a little tenderness about the lower part of the abdomen. But soon irritative fever shewed itself, and the patient sank a fortnight after the operation. The difficulty of seizing the stone probably arose from a portion of the bladder having contracted upon it, for after death the stone was found loose at the bottom of the bladder. The operation lasted nearly two hours. On dissection, the right kidney was found in a state of suppuration; the left contained fetid serum. The ureters were enlarged, their coats thickened, and highly vascular. The coats of the bladder were full half an inch in thickness;

its internal surface every where covered with black fetid mucus, except at the fundus, which appeared more healthy but inflamed. A piece of stone was found in the lower and back part of the bladder. The prostate gland was hardly any thing else than a mass of fetid matter.

Mr. Fletcher thinks it unquestionable that the young man died from the effects of the long-continued violence of the operation. In similar cases, where so much difficulty is experienced in extracting portions of calculi Mr. F. thinks it better to leave them in the bladder, and take the chance of a natural exit. Moral courage is the thing which is required. The spasm which holds the stone is more likely to yield, when the coarse attempts at its extraction are desisted from.

CASE 5. DEATH FROM SOUNDING FOR A STONE.

A boy, six years of age, was twice sounded for stone by the surgeon of a hospital, and the stone having been felt, the day was fixed for the operation. The child was tied and sounded by the operating surgeon, but he felt no stone. The consulting surgeon took the sound and used it rather roughly with the same ill success, and another and another visitor did the same. The surgeon now interposed and the boy was carried to bed. He complained that his belly ached, active peritoneal inflammation followed, and on the fourth day from the sounding the child died. On examination the inner lining of the bladder was found highly inflamed, and its peritoneal covering, at the fundus, was glued to the intestines, which were, on all sides, inflamed and smeared with lymph,

CASE 6. DEATH FROM CONTINUED VIOLENCE IN SEEKING FOR A SMALL STONE, AFTER THE BLADDER WAS OPENED.

"A surgeon made his way very skilfully into the bladder of a little boy, in which a stone was distinctly felt, and he could, on the introduction of his finger, occasionally touch it. The forceps were introduced with closed blades, and the point of the instrument every now and then would strike upon the stone, but when the blades were opened, and the surgeon endeavoured to grasp the stone, he found it constantly eluding their gripe, or slipping out of them. The operation continued in this way for nearly half an hour, the patient complaining greatly of how much he was hurt; but at length the forceps seized the stone securely, which was extracted with the utmost ease,—for its size was singularly small.

The boy was put to bed, struck heavily by the operation,—he was cold, and somewhat torpid, with a very feeble pulse;—and from this state he never recovered, although cordials and opium were given to him.

There was some, but very slight, tenderness of the abdomen on the following day; the patient was bled, and took opening medicine, and, of course, treated for peritonitis,—but he died on the fourth day from the date of the operation.

On inspecting the body, no signs of inflammation could be detected in the bladder or peritoneum,—all was pale and healthy. The bladder was, indeed, thickened, but this must have been the work of times past.

That this boy perished from the effect of a long-continued and worrying operation upon his nervous system is sufficiently clear from the dissection, and also from the circumstance that he never rallied, but remained cold, with the peculiar torpid and fatal heaviness upon him, which is seen when little children are sent into hospitals with dreadful burns about the trunk of the body. The destruction of the power of the brain and nervous system, by the violence of the shock, is the cause of death in both instances.

There is much variety of opinion as to the propriety of bleeding after lithotomy. Some practise it, and strongly recommend that it should be had recourse to upon the detection of any tenderness about the abdomen, notwithstanding a feeble pulse. There was certainly tenderness in this case.

For my own part, and from experience it is stated, I should be slow of bleeding after lithotomy, whilst evidence of decided prostration of the nervous system remained, in the shape of langour, indifference to external objects, sleepiness, and diminished temperature, even should some tenderness be present.

Above all things, it is presumed, the surgeon should be cautious in bleeding children under these circumstances, and especially gentle in his treatment of them during operation. It is very true, that in lithotomy children do better than grown persons; more recover. But this is to be accounted for on the ground that the operation in them is comparatively nothing. The stone is always small, and the operation throughout is much easier and quicker to perform, and, therefore, the little patient has less to endure. For the explanation of the greater success of lithotomy in children cannot be in their superior power of bearing suffering. Their irritability is greater, their nervous system sooner excited: and hence, in dentition, and in irritations within the alimentary canal, are we often obliged to witness the most distressing sufferings. It is probable that the majority of deaths from lithotomy in young children, is from the blow inflicted on the nervous power by the necessary severity of the operation, and not from the inflammatory actions set up by it." 93.

CASE 7. —FATAL PERITONITIS FROM LACERATION OF THE BLADDER IN THE OPERATION.

These cases are related in such a manner that it is difficult to condense some of them, and preserve at the same time that record of symptoms which constitutes their value. We must give the following in the original words. The case occurred to Mr. Fletcher's predecessor, well known as an excellent and successful lithotomist.

"I operated, in lithotomy, on a tall, well made man, twenty-nine years of age, who had been upwards of two years suffering severely from the stone, but, though somewhat emaciated, and apparently of an irritable constitution, he appeared by no means an improper subject for the operation.

In the introduction of the conductor I met with some resistance. I am

not certain whether it was from my not having divided the muscles with sufficient freedom, and consequently the urethra close to the prostate gland, or from my pressing the beak of the conductor with too much force against the groove of the convexity of the staff. However, I resumed my knife, and divided the urethra and a very small portion of the prostate, and then the conductor passed with ease. The stone was readily laid hold of by the forceps, *but the resistance was so great, that it was not without spending some time, and using much violence that I could extract it.*

The man bled very profusely, immediately after the coming away of the stone. However, after his legs were united, and his thighs brought together, the hemorrhage very much diminished, and he was sent to bed. He complained immediately of great pain just above the pelvis. After he was put to bed an opiate was given to him. A very little weeping of blood from the wounds was observed. An hour after I left him I sent my pupil to examine if it continued. He brought me word, that there was a continuance of the hemorrhage in an increased degree, and that the man was in great pain. I immediately went to him, and found him in the condition described. I perceived that the discharge, though thin, was not urinous, and, therefore, I concluded that it was chiefly the serum oozing from coagulating blood, and consequently that there was a considerable lodgment in the bladder. I gently dilated the wound, and had the mortification to find my opinion confirmed. I brought away a large quantity of coagulated blood. The poor man expressed a sense of great ease, but then the blood flowed most copiously through the external wound. I introduced my finger covered with lint, and took other alike ineffectual means to restrain the hemorrhage. Dr. Cheston was so obliging as to lend me his assistance. I tried a canula covered with lint dipped in astringent liquids, and a variety of methods, with little or no benefit. The man lost an immense quantity of blood. At length we left the wound to itself, and applying a solution of sal ammonia cold over the belly, and over the wound, and rags wetted in the same to the hypogastrium and between the thighs, the hemorrhage was entirely suppressed. The pain, however, continued. It increased during the night. The next morning his belly was sore, and somewhat tense. He was immoderately thirsty. He was sick, and troubled with frequent and feeble eructations.

He continued to grow worse and worse, and died on the fourth day.

On dissection there was a *considerable laceration of the bladder*, in a variety of directions, though none of them extensive.

It seemed that the hemorrhage was from the bladder, but this we could not fully ascertain. The peritoneum was generally inflamed, but there was no other unnatural appearance.

I do not, upon a review of this case, see any thing which could have been done in addition to, or variation from the means used, unless it was that I should have made a more free wound in the muscles, *if I had been aware of the size of the stone.* For though the resistance was apparently altogether in this bladder, yet it is probable that the wound in that organ would have been sufficient, and the opening would have dilated, if I had, by a very free and large incision through the muscles, removed all support to resistance, which the bladder itself had given." 95.

Mr. Fletcher concludes that, though the hæmorrhage was great, it had no share in producing the death of the patient. Of this we are not so sure. Granting that he died of peritonitis, still peritoneal inflammation supervening on such loss of blood, must be pretty inevitably fatal. But, no doubt, the constant flow of blood into the bladder, and the continuance of irritative means employed for its suppression, must have assisted in the production of peritoneal or cellular inflammation.

CASE. 8. PERITONITIS FROM VIOLENCE IN THE OPERATION—ULTIMATELY FATAL ABSCESS OF THE PELVIS AND KIDNEY.

This operation was performed by the same lithotomist, and, unwilling as we are to indulge in quotations, we really cannot abbreviate it.

"I cut a boy of ten years old. He lost a good deal of blood in the operation, from a branch of the pudica. In the evening his pulse was frequent, but in other respects he was doing well. In the night he complained a little of his belly. The next morning, his pulse being frequent, and his belly somewhat tense, I took from him about eight ounces of blood;—by the time of his having lost it, his lips became pale, and he shewed signs of faintness, and soon after was a little sick, and a profuse sweat broke out. His pulse grew a great deal quicker, and smaller, and it is scarce credible how rapidly the peritoneal affection increased. Before the bleeding, he could bear his belly to be struck gently, or to be handled without pain. It was not much swollen; but within half an hour after the blood had been drawn, the abdominal region became universally very much swollen, tympanitic, and exquisitely sore to the touch. He appeared to be in a great deal of pain, and his countenance grew expressive of great distress. His pulse was uncommonly quick and feeble, probably at least 180. He had had no stool since the operation. His urine was freely discharged through the wound, and some had passed through the urethra.

Clysters were given him, a blister was applied to the false ribs on one side, and a sinapism to the other. Warm fomentations of poppy heads, decoctions, and crude Sal Ammoniac. were used to his abdomen for an hour or two; but they seemed to do mischief, and to increase the pain and the swelling. Infus. Senn. cu. P. I. was given him, and afterwards some Ol. Ricin. after using the fomentations for two or three hours. Finding they afforded no relief, I changed them for Spt. Vin. Camph. cu. Tinct. Opii, applied cold, which seemed to lessen both the soreness and the pain. The next day he was better, the soreness of the abdomen was lessened.

The twenty-first day after the operation he died. In the course of seven or eight days he was very much amended, having natural stools, and a great part of the urine passing through the urethra. His abdomen being free from pain, but his pulse was always quick, his appetite did not return, he had generally upon him a thirst, and his tongue was in general whitish, nor had his abdomen a natural feel; so that it was pretty evident there was some latent mischief, though of what kind I could not tell; beside, he

every day grew more and more emaciated. His nights, though not painful, were disturbed. The nurse observed that his water was often whitish.

Upon opening his body, I found the bladder contracted to a very small size, so that its cavity would not have contained more than two or three spoonfuls of urine. It was nearly half an inch in thickness;—red spots, as of inflammation, appeared here and there on its mucous coat, which, however, seemed in no place to be ulcerated.

The wound which was made by the operation, and which, probably, had been somewhat increased in magnitude by ulceration, (*for the sides of the wound had sloughed,*) appeared to be larger than I expected, or intended it should have been; for the prostate gland was completely cut through, and the incision was continued quite through the neck of the bladder, the orifice of one of the seminal ducts was obliquely wounded, notwithstanding the great care which I took in directing my prostate knife.

One kidney was very little altered from a natural state, its pelvis, however, and the beginning of the ureter, were very much enlarged. The other kidney was merely a leathery cyst, full of matter, but a great deal diminished from its natural size. In the neighbourhood of the bladder, the intestines were adherent one to the other, and appeared to be considerably inflamed. Upon tearing the adhesion through, the posterior part of the pelvis was found full of thin pus, probably there was a pint and a half of that fluid. The sacrum was even bared by its action, and the rectum was loosened from its attachment to it.

The foregoing eight fatal cases, with one other, form the whole number of deaths that have been witnessed by Mr. Fletcher, out of fifty-nine operations that have been performed within his knowledge. He believes that in all, with the exception of the first and perhaps the third case, the loss of life arose entirely from what may be deemed an unnecessary violence. If the stone be very large, and the lateral operation made choice of, it is impossible to avoid that violence which Mr. Fletcher so earnestly deprecates. Under these circumstances he would adopt Professor Vacca's first or last recto-vesical operation, an operation which he justly considers as not to be placed in competition with the lateral operation for calculi of moderate dimensions.

In the four following cases the result was not fatal, although it was nearly so.

CASE 9. PERITONITIS FROM LONG-CONTINUED ATTEMPTS TO FIND THE STONE—TWO STONES—ONE SACCULATED—A PORTION LEFT BEHIND.

Mr. F. performed lithotomy Feb. 19th, 1817, on a man seventy-three years of age, of a good constitution. There was much difficulty in feeling the stone with the staff, and many indiscreet attempts were made to do so. There was nothing remarkable in the operation excepting that, besides a large stone, the bladder contained a smaller one encysted immediately above the pubes. A long pair of dressing forceps broke off the point, and the remainder was left behind, which

the nail of the fore-finger could feel on a level with the sides of the cyst and the bladder. No further attempts were made to dislodge this stone. In the night there was severe pain, with some swelling just above the pubes; the skin was rather hot, tongue furred, pulse hard and about 100. Thirty leeches were ordered, and when these had ceased to bleed, cold rags were to be constantly applied. In the following evening the pain was much diminished, the swelling gone, but there were no stools and some magnes. sulph. was prescribed. On the third morning it was reported that he had vomited twice in the night; the belly was more swollen, and very tender; the tongue furred; pulse 111. *V. S. ad 3xviii.*—*hirud. xij. abdomini—enema purgans.* When the leeches had ceased to bleed he was placed in the warm-bath, and afterwards a large blister was applied. In the evening the symptoms were relieved, the pulse was 45. A clyster, with some infusion of senna, and sixty drops of laudanum was ordered, and on the following morning the improvement was even greater. On the fifth day, in the evening, the pulse was 88, sharp and strong, the tongue was dry, he was more restless. *V. S. ad 3xvii.*—*hirud. xij. epigastrio—mag. sulph. omni horâ.* From this time he recovered gradually and was ultimately discharged cured. When last this patient was heard of he was well, and suffered no inconvenience from the sacculated stone in the bladder.

CASE 10. INFLAMMATION OF THE BLADDER FROM SOUNDING—HÆMORRHAGE DURING THE OPERATION—BLADDER FULL OF STONES.

Charles Pride, æt. 50, was admitted into the Infirmary under Mr. Fletcher, with stone in the bladder. He was twice sounded, and each time, after the operation, he complained of great pain and tenderness in the lower part of the belly, vomited repeatedly, and his urine deposited a great quantity of mucus; these symptoms were relieved by free leeching—the warm-bath—purgings. At the patient's urgent request Mr. F. performed the operation. During the operation the transversa perinæi bled nearly a quart. On cutting into the bladder Mr. F. found two large stones in it, and it was necessary to enlarge the wound in the bladder to an unusual extent. Both stones broke under the forceps, and were extracted in less than half an hour; they weighed about six ounces. After the operation the man became low and cold, and required some brandy. Next morning he began to vomit bilious matter, had constipation, pulse 120, feeble, tongue furred and white. He rejected effervescing draughts, &c. In the evening he complained of slight pain and tenderness at the bottom of the belly, he vomited during the night, and twenty leeches were applied next morning. In the afternoon his pulse was imperceptible, he was ordered brandy repeatedly, and in the night he had stools. He recovered.

This patient subsequently returned with fresh symptoms of stone in the bladder. The operation was performed, the stone found to be enclosed by a contraction of the bladder above the pubes, and it could not be dislodged by the forceps. With the tip of the fore-finger of the left hand as a guide the handle of the scoop was conducted to the stone, by gently depressing the handle the extreme point was inserted over the calculus, and with a few gentle efforts the stone was turned out of its sacculated position, and fell to the bottom of the bladder, whence it was easily removed by the forceps.

CASE 12. HÆMORRHAGE DURING AND AFTER THE OPERATION.

While Mr. Fletcher was operating on a healthy young man the stone broke under the first gripe of the forceps. The fragments were not extracted under half an hour, during which period hæmorrhage was going on. The vessel lay deep under the pubes and bled rather profusely. A large rectum bougie covered with oiled lint, held by an assistant, suppressed the bleeding, but in seven hours after the operation the instrument was displaced, the bleeding recurred, and half a pint of blood was lost. The instrument was replaced. On the third day it was withdrawn, and on the sixth, hæmorrhage took place to the extent of three pints. The instrument was carefully introduced, but removed, from its producing extreme soreness, on the following day. No further hæmorrhage followed, and the patient was dismissed cured.

CASE 13. IRRITABLE BLADDER—VIOLENCE IN OPERATING—ABSCESSSES IN ALL POSSIBLE DIRECTIONS.

Charles Matthews, æt. 12, was admitted May 23d, 1822, with symptoms of stone, and mucous sediment in the urine. On the 25th he passed a small stone. On the 4th June he was sounded, and a stone distinctly felt. In the evening he had great pain, and some tenderness in the belly, and next day there was more mucus streaked with blood, and great frequency of micturition. On the 3d July he was again sounded, and the same symptoms followed. On the 15th the operation was performed. The transversalis perinæi required to be tied. The opening in the bladder was made by the gorget, but not being large enough, a little violence was exercised by the forceps, and the stone extracted. It was large, soft, similar to sand-stone, with volatile effluvia. *Tr. opii*, ℥xxx. He went on pretty well till the 17th, when there was pyrexia, with slight tenderness in the lower part of the abdomen. Stools were procured by castor oil, but the symptoms continued next day, and were relieved by a warm-bath. On the 2d August he had rigors, and the

wound now began to discharge profusely, matter flowing from the wound, and apparently through the anus, on pressure of the belly. After this, several collections of matter took place, and burst externally in several places in the region of the bladder above the pubes. His health for a time was indifferent, but by July 1823, when he was discharged, it was re-established. At this time the discharge by the original wound was very small, but the urine still passed occasionally through those above the pubes.

With the preceding the cases of lithotomy are concluded. It will have been perceived that the point to which all our author's observations and precepts tend, is the avoidance of violence in the operation, the advantages of cutting over laceration of the parts in the extraction of the stone. We have said, and we scarcely need repeat it, that on this point experienced surgeons are not yet agreed. Mr. Brodie protests against complete section of the prostate gland; he would rather tear to a certain degree than cut, in order to shun the dangers of cellular inflammation. We trust we shall be pardoned for conceiving that this point requires further investigation, and that investigation can scarcely fall into better hands than those which have already been engaged with it. To pass to another subject, we think that the following remarks on lithotrity are not uncalled for at the present period.

“With regard to the modern practice of destroying the calculus, of boring, splitting, and hammering it to pieces in its soft and tender residence,—time only can discover the real value of the measure. On a first view,—it must be admitted that first views are frequently erroneous,—and on reading some of the foregoing cases, the reader may probably conclude, that if it were possible to select another spot, he would not choose the human bladder as a desirable situation for the operation of stone-breaking. They show that the mere irritation of a sound,—and of the closed forceps, in searching for a stone in the bladder, is sufficient to excite fatal inflammation in that organ,—and, in cases where no evidence existed of previous disease in the bladder or prostate gland, which would have pre-disposed those parts to fatal disorganization, under ordinary operating circumstances. Of course the work of death was effected by the irritation of the instruments employed in lithotomy. Will the lithontritic instruments, under similar circumstances, prove less irritating? Three cases out of seven, in one gentleman's practice, perished from inflammation of the bladder excited by them. Picked cases, paraded even before our best surgeons, do not furnish, either in kind or degree, the evidence necessary to decide upon the merits of lithotrity, and how far this innovation is likely to supplant or supersede the ancient and successful practice of lithotomy. Great and unbiassed experience of the most unquestionable kind,—faithful and honest narration of facts, pleasant or unpleasant,—of successes and *failures*, fairly intermingled alike,—with a love of truth,—can only decide the question. Evidence too, selected or not selected, should be taken with great caution, when proceeding from

interested sources. Lithontrity is chiefly in the hands of those who either get their bread by it, or wish to do so; and it is too much to expect that Nature should be the first to cry out against the gratification of her first wants. There is enough of evidence, however, to shew that the new operation bids fair to become a valuable auxiliary, if not a principal, in the treatment of calculi in the bladder; but the proper persons to mark the boundary of its merits, are those who get their bread from other sources. Surgeons generally, and especially hospital surgeons, whose operating habits, and greater experience in calculous affections, especially fit them for the important office of umpires, should no longer hesitate; for it is unquestionably both a matter of surprise and regret, that, up to this moment, not one case of lithontrity has been performed by a British surgeon, in a British hospital." 111.

II. ON SPASM OF THE GLOTTIS.

Mr. Fletcher observes that it may appear strange to write on the origin of an affection which some may believe not to exist. But as life may sometimes be suddenly extinguished by a sore throat, an abscess, or a wen, it becomes of consequence to determine the exact mode by which that process is effected, and to discover the several causes or particular affections which produce it. Some eminent men have believed that suffocation, from affections of the throat, is often occasioned by spasm of the glottis; and arguments and facts have been adduced in favour of the notion. The stricture, like that of the urethra, œsophagus, and rectum, is probably a spasmodic stricture, a sympathetic affection. Its cause is to be looked for in diseases of the throat which must form the objects of our study. The spasm of the glottis may be severe, or it may be slight, in the first case proving rapidly fatal, in the second, occasioning slight convulsive catches of the breath. The complaint is not accompanied by fever, unless this be produced by any of the inflammatory affections which excite the spasm itself. The following symptoms were noted down by our author soon after leaving the bedside of a patient.

"When first seized with spasm of the glottis, the patient starts up suddenly tossing his arms in wild affright; an expression of terror, as if attacked by some dreadful enemy within, sits upon his countenance; the eyebrows are raised over balls that are starting from their sockets; the shoulders rise and fall, as with an open mouth, and incredible exertions air is drawn through the nearly obstructed tube, with a singular and alarming sound. Not a word is uttered, enough of the understanding is left in this moment of terror, to induce a belief in the unfortunate patient, that one would be fatal. But as the violence of the spasm subsides, he tells you in monosyllables as well as he can, that he has been nearly choked.

This communication is sometimes made with a voice that causes you to

start ;—a deep, unnatural growl rises from the throat ; or it is a fearful broken whisper, that still bespeaks terror, though now on the decline. As this terror continues to fade, the expression of the whole man assumes a different character. Apprehensive of a return, he seizes the bed-clothes with his hands, which before were tossing in the air, that he may not be taken unprepared, and with one or the other he will occasionally point to the thyroid cartilage, as the seat of all his sufferings. A pale, haggard, and subdued countenance, on which are seen a few drops of cold perspiration, is before you ; the mouth half open ; the breathing yet hard. The eye-balls indeed have in a measure retired within their sockets, but the eyes themselves, as the understanding rallies, wear a mingled expression of keen, watchful intelligence, which follows your every movement, with restless anxiety. On your countenance and actions, are bent all the powers of the sufferer ; a steady gaze meets you every where ; if the bearing be calm and determined, there is hope, but if you betray a wavering countenance, and an inclination to reach the door, you will be detected, and your patient, should he recover, will put you down as nobody, or as one of little value in the hour of danger and difficulty." 3.

CASE 1. FATAL SPASM FROM AN ULCER IN THE ŒSOPHAGUS.

Abigail Tarret, æt. 18, was admitted into the Gloucester Infirmary, having complained for some weeks previously, of a pricking pain and difficulty in swallowing, and difficulty of breathing, especially at times. There were constant pain in the throat, neck, and side of the head ; some swelling, with hardness and rigidity of the muscles of the neck, and lymphatic glands ; great pain from the least movement of the head ; incapability of swallowing solids, and much difficulty in swallowing liquids ; large quantities of mucus in the throat, which were expectorated with difficulty. In about a month after admission she died suddenly, the breathing having previously become alarmingly impeded.—The only morbid appearance found on dissection was a large ulcer in the œsophagus, about an inch below the situation of the cricoid cartilage.

CASE 2. FATAL SPASM OF THE GLOTTIS, FROM BRONCHOCELE.

—Takell, æt. 14, was admitted into the Gloucester Infirmary for a bronchocele which had existed for seven years. Latterly her breathing had been occasionally much embarrassed, and the tumour had been tender and painful. On examination of the tumour she complained of much pain, and inspired with difficulty. Some leeches were applied, and on every occasion the same train of symptoms followed ; she sprang up in bed, drew in the air with a laborious exertion, and her countenance assumed a painfully haggard expression. A seton was introduced. The remainder of her life was passed in a succession of struggles to get air, and, as swallowing exasperated them, she attempted to take food no more, and died before the preparations for bronchotomy could be completed.

On examination there was found a cyst, which arose from the centre of the right lateral lobe of the thyroid gland, and contained about a small teacupfull of a fluid resembling ink. The lateral lobes themselves were much enlarged, the right most so. The larynx was perfectly healthy.

CASE 3. FATAL ABSCESS OF THE GLOTTIS, FROM A CHRONIC ABSCESS OF THE PHARYNX.

A middle aged man had laboured for some time under great difficulty of breathing and swallowing, with soreness and constant pain in the throat. His respiration was deep and hoarse, not unlike the barking of a dog. There was nothing unusual in the fauces, save that the tonsils were remarkably far back and separated from each other. One morning his breathing suddenly became extremely difficult, and in half an hour he died like one suffocated. On examination, there was discovered a chronic abscess deep in the pharynx, situated about two inches from the fauces, and containing about two ounces of pus. This very much lessened the size of the canal through which the food was to pass, and also made great pressure on the larynx, though it did not actually close it.

CASE 4. SPASM OF THE GLOTTIS FROM CYNANCHE TONSILLARIS, WITH ABSCESS.

In May, 1829, our author was summoned to see Mr. S. of Ashleworth. He found him exhausted, lying semi-recumbent, breathing noisily through the nose. The fauces were unusually swollen, the velum pendulum palati and tonsils advanced into the mouth, forming a complete barrier, and closing entirely the communication between the latter and the pharynx. He had had a sore throat for four days, had been bled and blistered, and for the last two days could neither speak nor swallow. Shortly before Mr. F. was sent for, the patient had been suddenly attacked with violent convulsive difficulty of breathing, which had threatened strangulation, and only ceased immediately before his arrival. Into the prominent part of the velum our author plunged a pharyngotomos, and a torrent of pus burst forth; the tonsils and velum were scarified freely. Mr. S. slowly recovered.

The next case is that of a girl affected with chronic enlargement of the tonsils to a very considerable degree. On the supervenition of any more acute inflammation from cold she would suddenly be attacked with paroxysms of extraordinary difficulty of breathing, the eyes starting from the head, and her respiration being accompanied by a peculiar sound. These paroxysms would only occur when she slept. She was sixteen years old, and had never menstruated. Leeches, &c. relieved her.

CASE 6. SUFFOCATION FROM A VENEREAL ULCER OF THE THROAT.

—— Joy applied at the hospital for a sore throat. His voice was a growl, he had great difficulty in swallowing, and sometimes of breathing, especially when he lay in bed. The breath was very offensive, but no disease in the throat was visible. He frequently expectorated thick matter, occasionally mixed with blood. There was no ulcer on the head. He had recently had sores on the penis and buboes, which had healed under mercury. He was recommended to enter the hospital, and exerted himself a good deal during the day to procure an admission letter. In the evening he was admitted, but during the night he was suddenly seized with spasmodic difficulty of breathing, and died immediately after swallowing, with great difficulty, an opiate. A large sloughy ulcer occupied the lower portion of the back of the pharynx, and had extended itself to the back of the larynx. The rima glottidis was free from disease, and its channel of natural size.

CASE 7.—SPASM OF THE GLOTTIS FROM PHLEGMONOUS INFLAMMATION OF THE NECK.

"I was requested to drive with speed to a gentleman, who was said to be suffocating. I had scarcely entered the house, when it was reported, that the violence of the attack had somewhat subsided, though the patient was still gasping for breath.

He was sitting nearly upright on the bed, and on my name being announced, he fixed his gaze anxiously upon me, as if to enquire what relief he might expect, from a close scrutiny of my bearing and personal appearance. The expression of the countenance had also the wild horror of one who had just escaped some frightful personal danger, and who was yet momentarily expecting again to be overtaken by it.

The Spasm of the Glottis was here plainly to be seen, in the occasional convulsive catches of his breath, though its violence had in a measure passed away.

He grasped, as he sat, the bed-clothes with both hands, and his mouth was open, drawing in air with great difficulty, his shoulders rising and falling as he did so, the eye-brows raised, the balls starting forwards, and a cold dew upon his pale face. As I approached the side of the bed, he let go the clothes with his right hand, and pointing to the front of the larynx, said in a hoarse and husky whisper, 'I shall be choked.'

This gentleman had been subject to sore throats, indeed he had lately had one, the effect of cold on a night exposure.

At present there was no vestige of any inflammation about the interior of the throat, though he now swallowed with difficulty: but on the exterior there was a general swelling across its middle, more especially on the left side, a little below the inferior cornu of the thyroid cartilage, deep and immediately over the carotid. The swelling had ascended high in the neck, making it look generally of a colossal size. At the point near the thyroid

cartilage there was a redness, tenderness to the touch, and pain, marking the presence of phlegmonous inflammation.

The pulse was quick; he was hot and thirsty. Fifty leeches were applied to the inflamed parts, and a strong purgative given.

Three hours afterwards I visited this patient. The bleeding had been profuse, and his respiration was infinitely more calm; though once, and for a minute, since my last visit, he struggled so much for air, that his attendants thought he would have gone. This character, indeed, had prevailed throughout; respiration always difficult, but at times the convulsive struggle and stricture about the larynx, frightful.

I watched the mode of breathing for nearly half an hour; and being satisfied that the regular difficulty, mingled now and then with spasm was greatly diminished, and that I saw no violent spasm of the glottis, I left, with instructions to be sent for, should the respiration become worse.

I heard no more of the progress of this patient, till I visited him eight hours afterwards. The breathing was nearly natural, the swelling in front of the throat greatly reduced, and the skin become pale. There appeared, however, a little hollowness of the point, which was red, near the inferior cornu of the thyroid cartilage.

The spasm of the glottis did not return: but a day or two afterwards, I understood that the patient brought up some offensive matter, making it probable that suppuration in the cellular membrane of the neck had taken place, and found its way into the pharynx." 14.

CASE 8. SPASM OF THE GLOTTIS FROM LARYNGITIS.

"A medical friend of mine, about fifty years of age, sent for me in the night, with a message that he feared he should be suffocated. I found him sitting up in bed, an expression of alarm on his countenance, and breathing with great difficulty, though regularly, that is, without those sudden exacerbations which indicate spasm of the muscles of the larynx. He however said, that before my arrival he had a more than common difficulty of breathing, that terrified him exceedingly, and so fearful was he of its return, that he would not permit his daughter to leave his bedside, where she was stationed to prevent his going to sleep, the fit, as he called it, having taken place during that period. His pulse was quick, and full; there was thirst, with some cough, and he brought up, occasionally, a quantity of mucus. He had been a good deal exposed of late to the night air, in his practice of an accoucheur, had been ill about two days with soreness of the throat in swallowing, and some difficulty of breathing, and fever, but nothing in degree to what he now suffered. He referred all his distress to the larynx, where he placed his finger; he complained of pain there, but especially of a sensation like the drawing of a purse-string, to close the channel of the purse: 'but,' said he, characteristically, in a croaking, broken voice, 'I suppose the string is not yet drawn very tight, when it is I shall be no more.'

As the fauces indicated no inflammation, and but very little redness, and that only visible when the tongue was well kept down on the lower part of the back of the pharynx, and as the boundaries of the neck were free of all irritation which might affect the glottis sympathetically, and as

the patient had taken cold, had cough, and symptoms of fever, together with a regular difficulty of breathing, independent of all spasms, and also expectoration of mucus, I ventured to believe, (more especially as he complained of regular pain under the thyroid cartilage,) that this was a case of inflammation of the mucous lining of the larynx, and perhaps of the lower portions of the pharynx, which excited the spasmodic action of the muscles.

He was bled largely from the arm, and forty leeches were applied as nearly as possible about the thyroid cartilage, to the spot where he complained of pain.

Under these active means the symptoms gradually faded. He retained his daughter however for a long time to prevent his sleeping, a painful and self-denying resolution for an exhausted man, only to be accounted for from the deep impression made on his memory by the suffocating nature of the spasm, which seized him during sleep.

To this day the impression of terror is as fresh as ever in this gentleman's memory; the fear of taking cold, and of a return of the attack is constant, and in consequence I believe he retired from his business as an eminent accoucheur." 16.

CASE 9. SPASM OF THE GLOTTIS FROM AN ELONGATED UVULA.

A steward of Colonel Berkeley's applied to Mr. Fletcher on account of occasional attacks of spasm of the glottis, which for some years he had been accustomed to experience during the night. The attack occurred during sleep, and impelled him to rise suddenly to seek relief, which always followed his change of position. On examination of the fauces, there was found no enlargement of the tonsils, but the uvula was remarkably elongated, its point lying horizontally on the tongue; the whole of the fauces had a chronic deep red and relaxed appearance. The gentleman had an almost constant feeling of something sticking in his throat, and suffered from the ordinary symptoms of indigestion. He would not consent to removal of part of the uvula, and was put upon tonic treatment, with powerful local astringents.

The foregoing are not all the cases related by Mr. Fletcher, but they are the most pertinent and impressive. We pass therefore to his observations on the disease, and on its treatment.

"It will be seen, in the foregoing cases, that the stricture of the glottis, the effects of irregular actions of its muscles, and which terminated in many of them in instant death, was produced by this interesting and important canal, sympathizing with the following distinct affections, more or less distant from itself.

1. From the irritation of acute inflammation of the mucous membrane of the fauces, where it covers the tonsils, velum pendulum palati, and tonsils (cynanche tonsillaris).

2. The irritation of the rare, acute inflammation of the mucous membrane of the larynx, (laryngitis,) and lower down the trachea, (cynanche

trachealis,) or croup of children. I never saw but one example of the spasm from this last cause, and of this no note was taken. The child was suffocated before bronchotomy could be performed.

3. The irritation of an irritable bronchocele.
4. From the irritation of an ulcer in the œsophagus.
5. The mere handling and leeching an irritable bronchocele.
6. The irritation of a scrophulous abscess of the pharynx.
7. The irritation of a phlegmonous abscess of the neck.
8. Irritation of a chronic abscess of the pharynx.
9. Of acute phlegmonous abscess of the fauces.
10. Chronic enlargement of the tonsils, when inflamed and increased in size by taking cold, as in sore throats.
11. Venereal ulcer of the throat.
12. Elongation of the uvula.

It is probable that the degree and duration of the spasm of the glottis, in many instances, depend upon the quality of the primary irritation, and the seat of its application, more especially extraordinary sensibility of surface, which itself may be influenced by the condition of the stomach. Thus some substances taken into this organ at one period will produce head-ach, whilst at others they will *not*." 19.

The treatment of spasmodic stricture of the glottis consists in the speedy removal of its cause; if this be not effected with decision and rapidity, bronchotomy becomes necessary. In general, the duration of the spasm is short; but, if there be regular difficulty of breathing independent of it, as from affections of the larynx, &c. the danger of suffocation is greatly increased. In all doubtful cases, the most careful survey of the interior and exterior parts of the throat should be made with the hand and eye. Nearly the whole of the pharynx may be explored with the finger, if the jaws are well fixed asunder by a proper speculum; the fore-finger of the right hand introduced between the molares, as far back as the corner of the mouth on its right side will admit of, may command the whole cavity. The examination should be quickly done. Laryngitis is discovered by its symptoms; its treatment should be active in the commencement, and bold in the extreme.

In the fatal case of bronchocele, there was rather irritability than inflammation, irritability which, as our readers well know, is not to be relieved by the means adapted to inflammation. On the diagnosis we need not insist here. If the spasmodic stricture of the glottis is excited by acute inflammation of the fauces, the most active local and general means should be employed; if suppuration has taken place, we require a fair and broad opening into the abscess. Very powerful general means, and free scarification of the inflamed part will often prevent suppuration, and to do so should be our object. If an abscess, however, does form in the tonsil, accompanied by increasing dyspnœa, no time should be lost, but a careful examination should be instantly resorted to.

The abscess generally bulges through the velum, on the side on which the tonsil is most affected. The finger usually distinguishes an obscure fluctuation, but if a pharyngotomos be plunged about at random, the abscess may not be opened. An abscess of the tonsil will sometimes take place on the back part, skirting it in a long and somewhat indistinct form, like the gum abscess seen between the cheek and the jaw.

“The best instrument for opening the abscess of the tonsil is a broad lancet concealed in a sheath, called the pharyngotomos. With the aid of a speculum, which furnishes a good view, and a steady hand, it may be used effectively and safely; but there is mischief to be apprehended from carelessness, as well as from gross ignorance, even in this very simple operation: it would be the former, were a surgeon to point his instrument towards the angle of the jaw, and plunge it deep in the carotid, because he would not be at the trouble of gaining a good view: it would be something else, of an infinitely worse character, should he do this in ignorance of the situation of that vessel. And yet it has been struck more than *once* or *twice*, and the unfortunate patient sent to his account without warning by the very hand that should have saved him. Of course the pharyngotomos should be held in a straight line from one of the lateral incisors opposite the abscess, to the back of the pharynx, and striking the abscess only when the operator is certain that the mouth of the canula is resting fairly upon the spot he wishes to tap.

Should the abscess be deep in the pharynx, as in the case of Hopton and the hospital patient, a curved instrument must be used, the fore-finger of the operator leading the point of the canula to the abscess, as far towards the back of the pharynx by the spine as possible, thus acting behind the larynx. The prominence of the tumour will assist.” 23

When acute inflammation supervenes upon chronic enlargement of the tonsil, the most vigorous means should be speedily adopted. The occurrence of the spasm during sleep is probably referrible to the position of the patient and her relaxed condition, the tonsils falling cumbrously backward, and encroaching on the pharynx. When the tonsil becomes so large as seriously to interfere with respiration and deglutition, it becomes necessary to remove a large portion of it. The removal of the whole by the knife is dangerous, and patients frequently dislike the use of the knife at all. Mr. Fletcher has been in the habit of using the ligature with perfect success.

“Cheselden used to pass a curved needle, armed with a double ligature, through the base of the enlarged tonsil, by which the part was divided into two portions. The threads were then separated, and the two belonging to the upper portion were passed through a canula, (Levret,) which was carried close to the tumour, and retained there by twisting the ligatures around its bars. The other half was then treated in the same manner, and the threads on each tightened daily. This is a difficult operation to perform, especially where the jaws are not fixed by a dilator, and Mr. Cheva-

lier somewhat improved it, in making a hole through the tonsil by means of a broad curved needle fixed in a long handle, and through that the double ligature was passed, appended to a bent probe, in the original manner of Cheselden. But even this method is sufficiently difficult and tedious. The orifice of the hole through the gland cannot always be easily discovered by the head of the probe, and then you have to tighten each thread separately. The mode I have adopted is one which renders all inconvenience to the operator, from the irritability of the fauces, impossible.

This is done by first separating the jaws of the patient by means of a dilator, so that when the fauces are teased by the fingers of the surgeon, the first shall not be bitten, nor the latter interrupted in his operation by the patient shutting the mouth.

Before the dilator is fixed, a packer's noose, made of small whip-cord, should be prepared. This is effected by making a single knot upon one end of the thread; this end, with the knot, is to be brought forward upon the other, so as to make a single noose upon itself, including the other, and to be drawn tight upon it, close to the first knot. The free end of the thread is then to be passed through the ring of the simple instrument used by Mr. Chevalier, to tighten the knot. See his plate, 3d. Vol. Med. and Chir. Transactions. So far, I go with Mr. Chevalier.

The dilator is now fixed; the jaws are well open. The assistant seizes the tonsil with a double hook, on which hangs the noose. This last, with the ring appended to it, is held by the surgeon himself. Now the assistant must pull the tonsil from its loose bed in a diagonal direction across the mouth: its base becomes elongated, the noose is slipped over it, and carried by the fingers of the surgeon close around it: the ring is then run up to the gland, and the ligature tightened, which is repeated daily till the tonsil drops off, which it does in a few days.

It may be supposed that this simple mode of noosing a tonsil could not be carried into effect where the base of the gland is very wide. But it is surprising how forcibly pulling out this part from its bed, will contract the base of it by elongation. Now and then it may so happen that the base would be too broad for the noose; I can only say, however, that I have never yet met with a tonsil with a base that would not yield to elongation, and, therefore, that could not be noosed in the way described.

If the surgeon be bold, and dexterous with his fingers, the whole operation is done with a rapidity and effect very different to the long and worrying mode pointed out by Cheselden, or the ingenious improvement of Mr. Chevalier." 25.

This concludes the chapter on Spasm of the Glottis. The cases are instructive—the remarks sensible. We have been careful to give Mr. Fletcher's opinions and experience, rather than to indulge in critical remarks. Mr. F. is surgeon to a county hospital, he publishes some of the results of his experience, and the public would rather have them than an ocean of commentary. Practical readers will form their own conclusions. We pass to the chapter on strictures of the œsophagus.

III. ON STRICTURES OF THE ŒSOPHAGUS AND THE DANGERS OF THE BOUGIE.

Mr. Fletcher reprobates the mischiefs which are produced by surgeons in their mechanical treatment of strictures of the œsophagus; he believes that false passages are made in one half of the cases treated. To improve the methodus medendi, by diminishing its danger, is the object of the present article, and with this view he proposes a new instrument, executed by Mr. Weiss.

Setting aside the spasmodic affections, there are two kinds of firm stricture of the œsophagus. The first appears to be a contraction or puckering of the inner membrane, with but little thickening in its neighbourhood, formed of a mere transverse fold of the membrane itself, leaving an aperture in the gullet, sometimes in its centre, often close by its side, with the remainder of the tube blocked up. This may be called the membranous stricture, yet it is capable, especially if thrown diagonally across the canal, of turning the point of the already bent instrument against the side of the tube itself. If a little more force than usual be applied, it passes quite through the substance of the œsophagus. The other form of stricture of the œsophagus is a dense, cartilaginous thickening of its coats, assuming a tumour-like character, and more or less surrounding the canal. This may be and has been called a scirrhus stricture, but of scirrhus it has not exactly the structure, neither has it altogether the symptoms. Our author has not seen this cartilaginous stricture conjoined with ulceration of the œsophagus. Whatever be its nature, it is the business of the surgeon to make his way through it. The cartilaginous is a very rare form of stricture, when compared with the membranous, and the latter is not common.

CASE I. *Membranous Stricture—Death from false Passage made by the Bougie.* A maiden lady, æt. 60, who had been affected for painful and difficult deglutition. On making an examination with a nearly 30 years with severe forms of dyspepsia, complained of uneasiness about her throat and across the lower part of the neck, with small bougie, Mr. F. with some difficulty got through a stricture beyond the cricoid cartilage, but not till he had turned the point considerably to the left; it seemed to grate over a rough surface. Mr. F. passed the instrument twice during a few days, and the patient left Gloucester improved. She passed to the charge of her family surgeon, who sometimes could pass the instrument and sometimes could not. A little blood was occasionally spit up, the glands in the neck swelled, she did not swallow so well, and complained of increased pain across the root of the neck, and a tight feeling as if a cord was drawn round

it. In a short time suppuration was advancing in front of two lymphatic glands, and a bougie only half the size of that previously employed could not be passed without difficulty. At times she could swallow much better than at others. In the course of a month she was very much reduced, and, although the bougie could be passed now and then, she invariably complained afterwards of pain between her shoulders, in the throat and about the sternum; she could only swallow liquids; she sometimes expectorated matter with an offensive smell.

"I was requested to see her. The abscesses had burst, but were not yet made into issues. The glands behind them were hard, and appeared to strike deep into the throat. On examination with the bougie I discovered more room at the point of the stricture than could be expected under the circumstances, and enough, I should have supposed, to allow of the passage of considerable morsels of solid food. The point of the instrument gave considerable pain at the situation of the increased opening, which reminded me of the pain suffered when an urethra bougie has made a new passage from that canal. She attempted to swallow, and it appeared that some small solid morcels passed, but milk returned. Invariably, however, this act of swallowing induced coughing, and great quantities of mucus were brought up by the mingled act of retching with coughing. She said feebly, 'I think it went down, but it comes up again with this nasty stuff.' She now too was worried by considerable difficulty of breathing, and I took my leave of her, I was sure, for the last time in life. The print will best illustrate the dissection. The stricture itself was nearly impervious, and was formed by a diagonal fold of the inner membrane across the canal of the œsophagus. There was, however, no diseased appearance near this new arrangement of the inner membrane forming the obstruction; but a considerable opening made by the bougie was evident, connecting the œsophagus and wind-pipe. The mucous membrane of the latter was greatly and extensively inflamed, and its channel filled with mucus, among which were one or two very small substances, looking like pieces of food of some sort, that had been forced in this direction through the opening or false passage. There were no other diseased appearances likely to shorten life." 30.

The foregoing case is intended to illustrate the extreme dangers of the pointed bougie used in the ordinary manner. The following is given with another view.

CASE 2. *Firm Cartilaginous Stricture.*

Mr. W. æt. 60, a spirit drinker, first felt some difficulty in swallowing his food about eight months before his application to Mr. Fletcher. His voice was then hoarse and husky; and great portion of his food was rejected, but he was otherwise in good health. In the course of a month after this; Mr. F. passed a bougie, the size of his little finger, through a stricture, with such difficulty as to convey an impression of its being unusually firm and resisting. Gradually the difficulty of

passing instruments increased, the point being turned back by the firmness of the stricture, whilst the difficulty of swallowing increased to such a degree, that he could only swallow a little port wine. He was supported in some degree by injections of strong broth, yet he seemed to be sinking fast, when, after various trials with other means, our author curved a large urethra metallic bougie to the shape of the fauces, and, having measured the distance of the stricture, succeeded in passing the obstruction. By moving the instrument laterally with some freedom, more room was obtained, and the patient swallowed almost immediately. For a week he swallowed meat and did well but the patient caught cold, and on the eighth day the bougie would not pass, the patient was feverish, his throat was sore, and the fauces swollen. The larynx now sympathised, and he breathed laboriously. Leeches were applied, he became weak, and although a tube was introduced into the œsophagus, and egg and wine thrown into the stomach, spasm of the glottis supervened, and he died in the night.

On examination the stricture of the œsophagus was apparently of scirrhus character, a section discovering a hard whitish, cartilaginous thickening, occupying a considerable portion of the circle of the œsophagus. There was no ulceration near it, nor any where in the canal, nor did the cut surface of the thickening give the appearance of the membranous septa common to scirrhus. Above the stricture the œsophagus had a rugous character, strongly contrasted with its smoothness below it.

“In the first of these cases, it is sufficiently clear that the patient's life was shortened by the making of a false passage with the bougie, into the wind-pipe. It is probable that a false passage thus made must always prove fatal; for, besides the difficulty of knowing when an instrument might be clear of it, and in the natural track of the œsophagus, there would also be another danger in the delay of waiting for the healing of this new opening, before attempts could again be made to find the natural channel; a delay that, in an enfeebled patient, would probably be ruinous.

The stricture must be daily and rapidly closing, the chance of success constantly diminishing, as there would be no power, even in occasional dilatation, to delay for a short time the fatal narrowing of the tube. In the urethra the case is different. The stream of urine, though diminished in size, passing frequently along its canal, would probably assist in checking its final closure from a stricture, when an interruption to the use of the bougie became necessary, from a false passage having been made by this instrument. This stream too, coming in a contrary direction from that of the false passage, passes over its small orifice without entering it. But such advantages do not exist, where a false passage has been made from the œsophagus; no mechanical power for a moment keeps open the stricture, for none can safely reach it, from the danger of its taking the new road. There is no natural dilating power from the direction of the stomach,

which would be the safest road. The only one left is so full of danger, that no prudent traveller would venture to encounter its perils. The bougie would follow the track of the new and ruinous opening it had already made, and food itself, the only natural means of temporary dilatation, could not be safely employed, for in the patient's attempt at swallowing, it would enter the trachea, (should the opening be in that direction,) and there excite a degree of inflammation in its mucous lining, that would greatly assist in bringing about a fatal termination, as in the case of Miss B. already described.

A false passage, therefore, from the œsophagus, is a much more important accident than one from the urethra: so teeming with mischief, and disappointment in the treatment of this interesting though desperate case of real stricture of the œsophagus, that too much pains cannot be taken in the formation of instruments, or in their employment, to avoid such a mishap.

In the female patient, the stricture was strictly membranous. There cannot be the least suspicion of malignity in the nature of this case, and therefore I feel no hesitation in believing, that her life would have been saved by the destruction of the stricture. This might certainly have been effected by an instrument which would pass the stricture safely, and afterwards by its construction, and in its retreat, possess the power of breaking asunder the folds of membrane constituting it.

In a case like the second, there may be doubts about the complete success of any instrument, but still in this, the one described would be superior to all others, inasmuch that it may be used with perfect safety, as far as the danger of making a false passage is concerned. It may be objected, that in the case of a scirrhus obstruction of the œsophagus, that the part would not dilate, and that the disease might be exasperated by the use of the instrument presently to be described. But it does not always happen, that there are no dilatable points left in the circumference of the œsophagus. The scirrhus thickening may only occupy one side or point of the tube, and in regard to the exasperation of the scirrhus into cancer, we must first have evidence of the existence of the former state, which is not to be obtained, unless in one particular case, where the surgeon could not be mistaken.

If the patient has an ulcerated scirrhus (cancer) of the œsophagus, he will spit pus mixed with blood, there will be pain of a lancinating nature about his throat—his pulse will quicken—his look be cadaverous—and he will more quickly emaciate than can be accounted for by the diminished quantity of food he swallows. In such a case, the chance of success from any instrument would indeed be but small, and the friends of the patient should know that nothing more than relief could be expected here. But, would a surgeon be justified even then in retiring from the patient; in doing nothing, in letting the tube be closed by the disease, without making an effort to widen it for the passage of food—for the prolongation of life—when he has full probability that it is in his power to carry this measure into effect?

In the worst possible case therefore of the stricture of the œsophagus, I am decidedly of opinion that a surgeon would not do his duty, who did

not attempt to remove it, at least so as to clear a road to the stomach. Life is always dear to the majority of mankind, and a prolongation of it is frequently desirable. In the foregoing case of cartilaginous stricture, there cannot be a doubt of its prolongation, and even a strong probability of an ultimate cure being effected, had an instrument, such as I have the honour of submitting to the profession been employed. The coarse and uncertain movements of the metallic sound *ça et là*, in improving the passage, were so decided and remarkable as to induce the patient and his friends to believe that a cure was certain. How much more efficient would an instrument be, whose operation must have a precision, a power of dilating more or less, or even of lacerating, according to the will of the operator?" 35.

The instruments now employed are the bougie made of cloth and wax; the probang, with an ivory ball and whalebone handle; the elastic gum bougie; the caustic bougie. To each and all of these Mr. F. urges objections, and many, if not most, are no doubt well founded, but we need not enumerate them here. M. F. has twice known the common bougie pushed through the œsophagus, and that by good surgeons. He has also once seen the elastic gum bougie driven through the lower part of the pharynx into the neck amongst the great vessels, around which it excited suppuration.

CASE 3. Fatal false Passage made by the Bougie through the Pharynx.

The patient had stricture of the œsophagus, impassable to a bougie, immediately opposite the cricoid cartilage, which had been inflamed by armed bougies to such an extent as not to permit the smallest quantity of solid food, and very little liquid to pass the obstruction. A surgeon thought he had succeeded in passing a stiffened elastic gum bougie with a sharp point. On the following day the throat was enormously swollen, a large abscess followed, and from the combined effects of starvation and the irritation of the abscess he died. A plate shews the perforation of the pharynx in the spot previously mentioned.

"The instrument I have projected, as a substitute for pointed ones, may be used as a lacerator of the stricture, or as a mere dilator of it. It acts from its sides. It is made of metal, curved to the shape of the throat. The size of it is small, so as to allow its point to pass through any stricture with certainty, and without the slightest force. I have never met with a stricture of the œsophagus in life or in death, that would not readily permit the passage of so small an instrument.

The stricture which destroyed the patient, the subject of the second case, admitted a metallic sound of twice the size of the dilator, although it was impassable to solid food. The drawing will best explain the structure of the dilator for the œsophagus stricture. A ball of steel is at the point of the instrument when it is closed; by turning its handle, this ball sepa-

rates the instrument into three divisions, ascends in the centre of them, and in its route, enlarges the size of the dilator, as may be required either to dilate or to destroy. Its use should be prefaced by an accurate examination of the seat of the stricture, which is usually behind the cartilages of the larynx, and most commonly below the cricoid. The head of the patient being well thrown back, and the jaws fixed asunder by the mouth dilator, a middle sized brown bougie, curved and made soft in hot water, should be passed down the pharynx to the stricture, which is generally distant from the edge of the dentes incisores, about six or seven inches, or according to the stature of the patient, or length of the neck. The stricture struck, its distance should be marked by the thumb-nail on the instrument, as it lies under the teeth. The soft point of the bougie will have received some impression from the stricture, and you may judge from this, and from the slight force you have employed, what sized dilator may be required. Having selected the proper size, the distance of the stricture from the teeth may be marked upon it with a small dentist, or Lancashire file, or any other mark; the exact admeasurement being copied from the soft bougie employed in the examination. The ball of the closed dilator should now be placed against the back of the pharynx, down which it should be permitted to slide till it reaches the stricture, or when it is ascertained that the mark is immediately below the edge of the teeth. If it should pass the stricture readily, but perceptibly, for an inch and a half, or till the file-mark be over the tongue, it has gone far enough, and the operator taking the instrument in his left hand, near to its handle, should turn this last with his right, and its point will now be expanded, according to the width that may be required. It is now to be slowly, and steadily withdrawn through the stricture which in its retrograde passage, it either tears or dilates, according to the judgment of the operator, from his knowledge of the quality or narrowness of the obstruction. If he wishes to dilate only, he will open the dilator slightly in the first instance, and, should the patient not then be enabled to swallow on its being withdrawn, he will repeat the introduction, and increase the dilatation until sufficient room be obtained—to admit of the passage of food to the stomach.” 39.

A lithographic plate of the instrument is given, but we think the description will render its nature sufficiently intelligible. When the stricture has been sufficiently opened for the safe introduction of the instrument it may be used as a mere dilator. Should the patient be suffering from inanition and the dilatation slow, a hollow tube may be easily passed through the stricture, and liquid food injected into the stomach by Weiss's syringe. The quantity given should not exceed three ounces at a time, which may be repeated several times a day. Overloading the stomach should be most scrupulously avoided. Our author dwells on the mechanical treatment of stricture of the œsophagus, because he conceives that if this is to be cured it is by downright surgery and nothing else. Physic is useless, and may be given to the dogs, with as much utility as to the patient. With the following sentiments he concludes, and so do we.

"It is now thirty-two years since I entered the wards of the Gloucester Infirmary, as a pupil. It is a large hospital. But such is the rarity of real or permanent obstructions of the gullet, that in hospital and private practice combined, I cannot satisfactorily make out a list of more than fourteen cases, which occurred during the whole of that long period. The majority of these were treated medically—they perished. Others were treated with the pointed bougie, simple, or armed—I fear this treatment was equally unsuccessful. Where opportunities occurred, in these last cases, of inspection after death, false passages, or openings through the substance of the tube, were generally discovered, which either killed the patient outright, or accelerated his fate.

Preserve me, therefore, from the bougie which is to dilate or force this kind of stricture with its point!

Let its use be ever so skilfully conducted—the surgeon ever so remarkable for his knowledge—coolness—delicacy—decision, and manual dexterity, rare combination indeed! still would I not suffer him to approach my person, had I a stricture of the œsophagus, armed with a bougie to act from its point. To escape from so dangerous an individual, would be the first and rational impulse of the mind, for man clings to life instinctively, even when he knows it to be burthensome." 42.

Some other portions of Mr. Fletcher's work remain to be noticed, which they will be on proper occasions. From the space we have devoted to its consideration, our readers very readily conceive that we entertain a favourable opinion of it; indeed we wish that all surgeons or physicians of experience would follow our eloquent author's example. Unfortunately the majority pursue a plan diametrically opposite; with them the books come first, the experience, if at all, afterwards. When we meet with a writer of the former class we welcome him with cordiality. If we have a fault to find with Mr. F. it is touching his style. For medical writing it is somewhat too fine, too rhetorical. But this is a trifling blemish, and we part from Mr. Fletcher with feelings of so much consideration and respect, that we experience great pleasure in the expectation of meeting him again.

VII.

- I. OUTLINES OF THE ANCIENT HISTORY OF MEDICINE, BEING A VIEW OF THE HEALING ART AMONG THE EGYPTIANS, GREEKS, ROMANS, AND ARABIANS. By *D. M. Moir*, Surgeon. Blackwood, Edinburgh; and Cadel, London. 1831.
- II. THE HISTORY OF MEDICINE, SURGERY, AND ANATOMY, FROM THE CREATION OF THE WORLD TO THE COMMENCEMENT OF THE NINETEENTH CENTURY. By *W. Hamilton*, M. B. Two Volumes. London, Colbourn and Bentley. 1831.

BEFORE the appearance of Hippocrates, medicine could not be dignified with the name, as it did not wear the character of science. Wrapped up in mythological mystery, and entangled within the mazy labyrinths of superstition, the facts to which it could pretend were few, and many of those were based upon no very settled principles. The gods being regarded as the first physicians, divination was liberally intermingled with all medical enquiries, and an act, which not only traced its origin to Heaven, but claimed the treatment of diseases, which were themselves regarded as of celestial birth, gave but little encouragement to the exercise of human industry. Apollo has been honoured by many with the fatherhood of physic, his reputed son Orpheus has been invested with the same distinction by others, the Centaur Chiron has put forward strong claim to the same merit, but Æsculapius has been esteemed by very general consent its most legitimate parent. According to Cicero these individuals, all of whom were distinguished by their medical attainments, were called by this name, while the veritable Æsculapius Galen claims for Greece; but, with the exception of a few scattered notices through the pages of ancient history, no record exists of the services which attained for him this high pre-eminence. On his demise, however, he was elevated by his cotemporaries to the mansion of the gods, his sons Podalirius and Machaon followed Achilles to the Trojan war, and his descendants, the Asclepiades, made themselves remarkable, for many centuries afterwards, for the care with which they recorded on the walls and pillars of their temples the cures which they performed, and the medicines by which these cures had been achieved. Had not priestcraft interfered with these primitive hospitals and rude journals of clinical medicine, by converting to its own aggrandisement the wealth and reputation which they were fast acquiring, medicine had certainly made more rapid progress; but finding that to combine the mysteries of their absurd idolatry with the promising allurements of the healing art, they acquired a stronger power over the human mind, they gradu-

ally appropriated to themselves the two professions, ignorantly blended them into one senseless mixture, and although more than five hundred years had elapsed between the siege of Troy and the birth of the Sage of Cos, it is truly melancholy to witness the unimproved and stationary condition of medicine during that lengthened period. With the exception of about half a dozen names, and the greater number of these were names without a name—history passes in silence over this unproductive era, and when we read some of the doctrines of Alcmaeon, whom Aristotle, Diogenes, and Plutarch unite in lauding as the brightest luminary to which that age gave birth, it cannot be considered strange that the moderns should stop at Hippocrates in their retrospect of medical history. He is said to have been the first who engaged in dissection, but as the human body was then and for a long time after regarded sacred after death, his knife, there is good reason to believe, was exclusively confined to the inspection of inferior animals. Of chemistry nothing was known, unless we consider as knowledge the visionary efforts of the alchymist to transmute the metals into gold. The catalogue of medicines, which were commonly employed, was extremely meagre. The school of Cnidos almost confined itself to the use of elaterium and one or two other drastic purgatives, and for many of the most active remedies which they employed, they acknowledged themselves indebted to the favor of the gods. Thus Diana is supposed to have discovered the properties of wormwood, Circe the effects of nightshade, and Pallas the virtue of feverfew. The surgical knowledge of the ancients, which for obvious reasons must have been more complete than that of any other branch of medicine, seems to have principally consisted of phlebotomy, stopping hæmorrhage by styptics or cautery, binding up wounds and fractures, and removing by free incisions darts and arrows from the flesh. But the treatment of internal disease was so utterly unknown that, although Homer, speaking of Æsculapius, says that he was able to restore even the dead to life, because he succeeded in stanching the wounds of Hippolytus, is more than once compelled to invoke the assistance of the gods, to expel from the Grecian camp the ravages of pestilence.

In some such state as this was medicine, when the beginning of the 80th Olympiad blessed the world with one of the brightest ornaments in the person of Hippocrates. This truly great man was the 17th in descent from Æsculapius, if the genealogies of the Asclepiadæ can be confided in, and as both his father and grandfather were physicians, he entered upon the study of his profession with advantages which his bold and original mind was well calculated to improve. The school of Cos, in which he received the rudiments of his education, was conducted on more philosophical principles than either that of Rhodes

or Cnidos, which were its most formidable cotemporaries. Disease was more patiently studied in connexion with its proximate cause, and medicine was more carefully administered with relation to its effects upon the body. Priestcraft was exercised, however, in all the schools of the Asclepiadæ, and medicine was so wrapped up in the mysteries of divination, that senseless incantations, unmeaning prayers and ostentatious ceremonies were as generally employed and as much confided in, as the skill of the physician or the power of drugs. The imagination could often be excited when the body was insensible to stimuli, and the comforts and consolations of the priest were not unfrequently more soothing to the patient than operations clumsily performed and medicines exhibited in ignorance. The sagacious mind of Hippocrates soon discovered the injurious influence of priestly interference, and one of the first principles, which he labored to establish, was, that diseases were not rained on us from Heaven, but were earth-born evils, and that therefore while prayer and penancies were excellent in themselves, they could exert but little power in their removal, while they tended to cramp human industry and shake confidence in human skill. Errors of diet and vitiations of the air he considered the most pregnant sources of diseases, and to the regulation of the one and purification of the other much of his success in the treatment of disease must unquestionably be ascribed. Bathing was among his favorite remedies, and the restrictions, with which he guards its employment, are almost the very same with those which Dr. Currie, in his medical reports on the effects of cold bathing, long afterwards published. Emetics he considers invaluable in the prevention of disease. In complaints seated above the liver he took blood from the arm, in those situated below it, he bled from the foot, ankle, or ham, and when purging and bleeding failed to afford the necessary relief, he had recourse to sudorific and diuretic medicines. Digestion he ascribed to concoction, blood he regarded as the source of heat, and some obscure hints on the course of this fluid through the body are repeatedly thrown out.

It were irrelevant in the present place to enter more minutely into the doctrines and discoveries of Hippocrates, but it might tend to lower the pride of the present day, as well as do justice to many names which are now almost forgotten, were we to run a parallel between the state of medicine at the close of Hippocrates' career and its condition among ourselves. When we reflect that between the mysteries of theorists and the mummeries of priests, the little truth which was really known, when this great man made his appearance, was so blended with gross error, that the incongruous compound seemed almost uniform in incomprehensible absurdity, it were no mean praise to say that Hippocrates separated the dross from the metal; but when we

add that he not only did this, but so augmented the sum that was really known by additional facts of his own discovery, that little, comparatively speaking, has been since done, which, in strict veracity, can be called original, our voice of praise must be raised into one bordering upon enthusiasm. Before his day medicine was a contemptible medley of silly quackery, without either principle or plan, and since his period we have rather been confirming the foundation which his industry laid down, than materially adding to the superstructure.

Thessalus and Draco, sons of Hippocrates, and Polybus, his son-in-law, followed the profession of their father, and rose to considerable eminence, more probably in consequence of their connexion than their talents. Draco was made physician to Archelaus, King of Macedonia; and Polybus succeeded his father-in law in lecturing upon medicine. The luxurious habits, however, into which Greece fell soon after this period, had its ordinary effects upon the progress of general knowledge, and medicine, in common with all other subjects of pursuit, materially suffered. The school of the Empirics, to which the Cosan Sage belonged, was succeeded by that of the Dogmatists, the country was speedily overrun with Sophists, who were perpetually disputing on the doctrine of revulsion; one party contending that the peccant humour should be removed by means applied directly to the part affected, while others argued that it should be withdrawn at some distance from it. Praxagoras was the last of the Asclepiadæ, who attained distinction. He first described the points in which arteries differ from veins, he performed some very bold operations in surgery with great success, he fancied that all the seminal principles of disease existed in the blood, he gave no medicines which were not of a vegetable nature, and he ascribed much more importance to the indications of the pulse in the management of disease than any of his predecessors.

In the fourth century before Christ, Aristotle added, more especially in comparative anatomy, many important facts to the fund of medical science; but yet when we find that he gives three ventricles to the human heart, that he considers this organ as the source of the nerves, that he describes the bones of lions as destitute of marrow, and the necks of wolves as inflexible, we cannot join with any great degree of earnestness in the popular applause with which it has been fashionable to hail the preceptor of Alexander. His nephew Callisthenes wrote two works on anatomy and botany, and his pupil Theophrastus catalogued five hundred plants, describing their physical and medicinal qualities. On the death of Alexander science took up her residence in Alexandria under the auspices of Ptolemy Rater, and as the prejudices, which had hitherto prevented the cultivation of human anatomy

were gradually yielding before the light of knowledge, the study of the human body was first formally taught in Alexandria. Herophilus and Erasistratus were educated in this school, and so practised were they in the examination of the human body after death, that Tertullian, who lived nearly 500 years after Herophilus, speaks of him as a "butcher who dissected 600 men to discover nature, and who hated man in order to learn the structure of his frame." This worthy father has transgressed, we fear, the limits of truth as well as of charity, when he asserts that many of the subjects which Herophilus inspected "did not die a natural death, but expired amid all the agonies to which the curiosity of the anatomist was pleased to inflict upon them." Something of the nervous system was for the first time revealed by this man, yet he falls into the universal error of his predecessors, in confounding tendons and ligaments with nerves, and from his predilection for soothing remedies Galen calls him an empiric. Erasistratus, his cotemporary, by discovering the lacteals, added materially to the rising reputation of the Alexandrian school, and yet it is a fact so singular as scarcely to be accounted for, that, adopting the fancy of the Egyptian dogmatists, he believed the arteries to be filled with air. Erasistratus lies under the same imputation which Tertullian fastened upon Herophilus, and it is more than singular that such a man as Celsus could be betrayed into the belief that the charge was well founded. He says that both Herophilus and Erasistratus "dissected living criminals condemned to death, and dragged them from their prisons for that purpose."

About this period the medical art was divided into surgery, pharmacy and medicine—a triform character which it has since worn, and now instead of practising generally, as had been previously the case, those who treated internal disease affected a superiority over such as performed manual operations, and the surgeon and physician combined in making the pharmacist inferior to both. The evil, which these absurd distinctions have since done to the interests of our profession, it were probably difficult to estimate; but this we apprehend can be fairly established, that any good, which it may have produced falls far short of counterbalancing the ills to which it has given rise. Shortly after this Utopian distinction was established, the profession became distracted into opposing sects, and a spirit of envy gradually crept into it which marred the harmony that had hitherto prevailed; many confined themselves not only to the performance of a single operation, but to the preparation of a single remedy which, like some of our patent drugs in the present day, was christened in the name of its inventor and puffed into notoriety as infallible.

After the seat of empire was transferred to Europe, Rome became the nursery of knowledge, and many of the most distinguished Grecian

and Egyptian schools, following the seat of power, took up their abode in Italy. At first however, the Romans betrayed an almost invincible aversion against medicine, nor was this feeling of dislike a vulgar prejudice, which was confined to the lower orders of the poor, for no less distinguished a man than Cato the Censor dispensed with professional assistance during any sickness in his family, preferring to treat them according to the directions of a work in his possession which contained the necessary forms of prayers and incantations. It is curious to perceive how a man, so justly distinguished for superior talents and acquirements, should fancy that dislocations could be reduced or fractures healed by such unintelligible jargon as "huat, hanat, huat, ista, pista, sista, domiabo, damnaustra," and "huat, haut, haut, ista, sistar, sis, ardannabon, damnaustra." Fear, however, at length accomplished what reason could not achieve, and the violence of an epidemic, which took place nearly four centuries after the foundation of their city, and which baffled all their charms and incantations, drove them for advice to the temple of Epidaurus. Æsculapius, it would appear, was so propitious to the supplicants that the plague subsided shortly after their visit to the oracle, and not only was a temple erected in gratitude to that deity, but various other new gods, whose names had scarcely been previously known, had distinguished honors paid to them. Hence a votive tablet was erected to the goddess FEBRIS, and the goddesses ASIPAGES, who presided over the growth of bones, and CARNA, to whose care the viscera fell, were canonized. One of the first men of note, who settled in Rome at this period, was Asclepiades, who was a Materialist and who treated the body as a mere machine. Fevers, inflammations and similar disorders of excitement he ascribed to obstruction, while dropsy, languor and syncope were referred to relaxation of the pores. Had this mountebank been content with forming theories which he could not establish, the peculiarities of his system might not have excited much attention; but he attacked the doctrines and practice of Hippocrates with such an unsparing hand, that an artificial importance was thus attached to what might otherwise have lain long neglected, and as wine was his sheet-anchor in every disease, it has been imagined by some that to the exhilarating effects of this soothing cordial he was mainly indebted for his popularity. After his death Themison his pupil established the methodic sect, which Saranus, Thessalus and Cœlius Aurelianus afterwards raised to very considerable distinction.

Although medicine had now attained firm and reputable rank among the sciences, which were taught in Rome, it is somewhat singular that not one of those, whom we have mentioned as having contributed to

raise it to this distinction, was of Roman origin; the majority having been Greeks and some Egyptians. Aurelius Cornelius Celsus is the first Roman citizen, whose medical works have descended to us, yet some have found reason to suspect that he himself never practised physic. However this may be his writings are much superior to all those which preceded them, whether we consider the number and importance of the facts which they contain; the perspicuity and good taste with which these facts are detailed, or the caution which has been observed in mixing any thing very conjectural with the practical subjects which engrossed his attention. Equa to Cicero in the classicality of his style, and to Hippocrates in the practicality of his matter, he excelled all preceding writers in the unrestrained candour with which he acknowledges truth in whatever sect he discovered it, and in the diligence with which he selects from their various systems whatever appeared to him judicious and valuable. Like his great predecessor Hippocrates he was strictly an eclectic, who neither acknowledged sects nor schisms any farther than the doctrines which they taught were consonant with reason and verified in practice. His parentage is utterly unknown, but whether it were patrician or plebeian is of little importance to posterity, and certainly of none whatever either to the perfection of his character, or the perpetuity of his fame.

About the middle of the first century, and nearly if not cotemporary with Celsus, appeared the *incomparable* Aretæus as he was for a long time designated, from the value and elegance of his writings. First a pneumatist he afterwards attached himself to the eclectic school, and by advocating the necessity of anatomical knowledge to the successful treatment of disease, he eagerly contributed to place the practice of medicine on that scientific footing, which regulates our curative measures according to the structure and functions of the diseased organ. He may justly be esteemed the father of pathology, as little if any attention was paid prior to his day to the structural changes, which morbid actions occasion. He always bled on the side opposite to that affected, he introduced cantharides into medicine, and although he prescribed few remedies, yet when obvious indications of treatment existed, he combated the danger with an uncompromising firmness, which many considered bordering on rashness. This censure we believe was totally groundless, for the pathological principle, by which Aretæus regulated both the character and action of his remedies, were much more precise and less calculated to deceive than those theoretic-al dogmata, which so generally occupied the attention of the schools.

In travelling along the historical line of our profession, the next brilliant ornament which adorns its annals is Claudius Galen. This

celebrated Grecian father was a native of Pergamus, who after finishing his education in Alexandria, settled in Rome in his 34th year, and shortly afterwards commenced a course of lectures on anatomy, which displayed so much talent, and excited so much attention, that the Roman physicians became jealous of his rising fame, and, by a series of harassing persecutions, compelled him to purchase peace by withdrawing entirely from the city. Scarcely, however, had he spent a year in exile when he was recalled by Marcus Aurelius, and, as soon as Commodus came to the throne, he was appointed physician to the young emperor. His writings made their first appearance in the world anonymously, whether from modesty or cunning is not certainly known; but, as Galen was remarkable for his high opinion of himself, and as part of the persecution which he endured arose from an indiscreet manifestation of this consciousness it is not likely that diffidence was much concerned in this arrangement. One, who could declare that the glory of pointing out the true path to medical science was the property of Hippocrates, while that of conquering the obstacles which rendered its approach arduous was reserved for him, was not very likely to withhold his name from a title-page through fear of being overwhelmed with praise. On medical subjects alone he penned between 4 and 500 treatises; and, unlike many writers, who plead the voluminousness of their works as an apology for their incorrectness, every subject upon which he wrote is carefully considered, and treated with as much care as though no other shared its claims upon his attention. His indiscriminating reverence for Hippocrates seduced him into a credulous admission of all that sage had taught. Whatever the Coan chief asserted he found reasons to defend, and no strength of argument was found sufficient to recommend whatever had encountered his opposition. Hence may we, perhaps, explain some of the gross anatomical and practical blunders with which his works are mutilated; such as his tracing the origin of the veins to the liver and of the arteries to the heart; and to his overweening love of theory may many other deficiencies be referred. In this respect, these two great men most widely differed. Conjecture was never hazarded by the one, unless it were strongly supported by appearances, while the other was seldom proof against theory, when its aptitude promised a ready explanation of what seemed mysterious and abstruse. When young, he strongly inclined to atheism, but his anatomical studies had the effect of awakening him to a belief in the Supreme Being, and his writings are strewn with the most pious reflections upon the beneficence and wisdom of his government.

It is generally believed that, for the space of 1200 years from the days of Galen, medicine, like every other science, remained stationary; yet, although the labours of Aribasius, Numesius, Cælius, Paulus

Ægineta, and a few other writers, whose names have survived the general ruin, are too few and unimportant to falsify an observation which is generally accurate, still some injurious errors were expunged, and a few important additions had been made. Several surgical operations were performed which had not been previously attempted, some remedies were discovered which had been previously unknown, and, upon comparing the writings of Cetus with those of Galen, it is quite certain that the catalogue of human maladies recorded by the former is one-third larger than that which the latter had described. The obstetrical branch of the profession was more especially a gainer during this dark and unenlightened period. Indeed until Paulus Ægineta contrived to gain the favor of the Arabian ladies in this department, midwifery seems to have been almost entirely neglected. When the dimensions of the pelvis rendered parturition impracticable, embryotomy was proposed by him; but the previous death of the child he considered a *sine quâ non* to its performance.

As the downfall of the Roman Empire, by the incursion of the northern tribes, extinguished the torch of science in the West, the capture of Alexandria by the Caliph Omar, and the destruction of the Alexandrian Library by that ignorant enthusiast, arrested the progress of knowledge in Egypt, and transferred into Arabia most of the distinguished philosophers of that day. By the exertions of John Philoponus, and some other friends to learning, some important manuscripts were rescued out of the hands of the Mahomedan. These papers the Syrian Christians carefully translated into the language of their country, and, towards the close of the eighth century, medicine had so far revived from the injury which it had sustained, that the Caliph Almanzor established a college at Bagdad, to which his famous successor, Haroun al Raschid, added many public schools and hospitals. Mesue the elder, Serapion, Rhazes, Hally-Abbas, Avicenna, Aibucasis, and Avenzoar, are among the most celebrated men to which these seminaries gave birth. Ali Asbaia enumerates no fewer than 220 treatises of which Rhazes was the author, and the Arabian historians describe him as being as skilled in astronomy, chemistry, and every other science then cultivated, as he was in medicine. From their belief that the soul remained in the body for a considerable time after death, human anatomy was strictly prohibited by the Arabians. No improvement, therefore, of any consequence seems to have been made in this department, but both surgery and physic advanced under their exertions. Spina bifida, small-pox, and measles were accurately described, for the first time, by Rhazes, trichiasis was cured by him, (as we do,) by cutting out a slip of the eyelid, fistulous ulcers and indolent sores were treated by compression, and chemical medicines were first introduced by the Arabians into the management of disease. Their knowledge of

pharmacy generally was very considerable; one of the directors of their college at Jandisabour gave the first dispensatory to the world, and the municipal authorities not only watched over the qualities, but regulated the prices of their drugs. The Hawi of Rhazes and the Canon of Avicenna fully rivalled the writings of the Grecian fathers, both in the extent of their circulation and in the influence of their doctrines. For five centuries, Avicenna was as faithfully followed as though his writings had been dictated by the spirit of infallibility, and so great was the reverence which his talents and acquirements inspired, that the gross immoralities of his private character, in place of detracting from his fame, seemed to operate as a foil to his public virtues. Avenzoar, who flourished not long after his decease, and whose professional character was little, if at all, inferior, held him in the very highest estimation, calling him the "treasury of universal knowledge," and his works were translated, abridged, and commented on, for nearly six hundred years after his death.

Soon after this period, the arts and sciences declined among the Saracens, and, by the establishment of an intolerant government, the Turkish power speedily extinguished them. Salernum, a small town within the territories of Naples, now became the refuge of knowledge. From a very early period, there had existed in this city a monastery of Benedictine Fathers, and although medicine was at first generally practised by the priests for the sake of gain, and in total ignorance of even its most fundamental principles, about the beginning of the 10th century, these monks began to apply themselves more regularly to the study of medicine, and, taking the works of Galen for their guide, they gradually rose in reputation, and materially contributed to its improvement. Towards the close of the 12th century, Benjamin of Tudela visited Salernum, while travelling in quest of his countrymen in the East; and so highly had it risen in character above every other seminary, that this Jewish Rabbi describes it as the best school of medicine among the children of Edom. Frederick the 2d conferred upon this school, in the year 1225, the power of conferring degrees on its pupils, both in medicine and surgery; it was placed under the protection of St. Matthew, and was styled "*Civitas Hippocratis*." The examinations were conducted with the greatest strictness; candidates for the degree of Dr. in medicine were required to produce seven years' tickets from competent professors, and they were obliged to study as text-books the *Therapeutics* of Galen, the first Canon of Avicenna, and the *Aphorisms* of Hippocrates. Before admission could be obtained to a surgeon's diploma, twelve months' attendance on anatomical instruction was considered necessary; and, on being admitted, the candidate was sworn to refuse remuneration for attendance

upon the poor, and to enter into no lucrative compact with druggists or apothecaries. These preliminaries gone through, a book was placed in his hand, a ring on his finger, a crown of laurel upon his brow, and he was hailed with the kiss of peace.

The commencement of the 13th century was distinguished by the appearance of two men, whose exertions in behalf of knowledge, at a period of such general darkness, obtained for them among their cotemporaries the character of magicians. Roger Bacon in England, and Albertus Magnus in France, gave an impulse to the progress of learning which it had not before received since the decline of the Arabian schools. The prelates and the monks, however, rose up in arms against the zealous exertions of these enlightened men. Albertus was denounced as an arch magician, and although Bacon himself was a Franciscan Monk, the General of his own order persecuted him with such unrelenting severity, that he kept him imprisoned for upwards of ten years. The anxiety which existed at this time to discover the philosopher's stone, contributed to direct the attention of these men more immediately to chemistry. The *aurum potabile* was, in Bacon's estimation, a most valuable remedy, and he extols, in no very measured language, the restorative virtues of *viper's flesh*. Medicine had now become a general branch of education in the principal schools of Europe, but the universities of Montpellier, Paris, Bologna, Padua, Milan, Pavia, and Piacenza, were the most esteemed in this department.

England had not, as yet, done any thing to advance the interests of medicine, if we except the eight general treatises of Friar Bacon, which were principally collated out of the writings of the ancients. No encouragement was held out by the schools in England at this period for the cultivation of medicine. The treatment of disease was exclusively the province of the monks, and their influence over the people's mind gave them such an advantage over lay practitioners, that, for a long time, these last could not undertake to rival them with any prospect of success. Gilbertus Anglicanus may be fairly considered as the first medical writer of any note to which our country gave birth. His principal work was a compendium of medicine; but he did more essential service to the profession, by exposing the ignorance of the monks in the knowledge and treatment of disease, than by his writings, which contained very little that might not be found in the works of the Arabians. Gilbert is supposed to have flourished in the beginning of the 14th century, and, about the year 1320, appeared John of Gaddesden, the author of the *Rosa Anglicana*, which Chaucer's muse has so laboured to extol. He pretended to cure all diseases, and, where ordinary remedies proved fruitless, he was not backward in having recourse to secret charms and unknown nostrums. He was appointed physician to Edward II. and, as the court physician had ever previously been a foreigner, the distinction conferred by such appointment must have been considerable.

What John did for medicine, Guy de Chauliac achieved for surgery. This man was professor at Montpellier, and, after practising for many years at Leyden, he ultimately settled at Avignon, where he became physician to Clement VI. In his *Magna Chirurgia*, which has been translated into most of the European languages, he gives us a list of all the principal writers upon

surgery before him, and annexes to each a short critique on the doctrines and practice recommended. He minutely details the several modes of treating hernia by the knife, the caustic and the cautery, and he was the first to observe that the Cæsarean operation may be practised after the mother's death to preserve the child. Cotemporary with Guy was John Arden, whose treatise on *fistula in ano* was translated as late as 1588. He is generally considered to have been an Englishman, but there are reasons for suspecting his birth-place to have been further north. In cautious prudence and contracted selfishness he was obviously Scotch; for he always bargained with his patients before entering upon their treatment, as to the amount of remuneration with which his labours would be repaid, and, not satisfied with acting so avariciously himself, he advises medical men to stipulate for as much as they can get, and to obtain security for the payment of the sum agreed upon as soon as the cure is accomplished!

About the commencement of the 15th century Jacobus Sylvius flourished as a lecturer in Paris, and immortalized his name by important discoveries in anatomy. His reverence for Galen was so great as to interfere with his private friendships; and, although Vesalius had been his own pupil, he wrote several books against him, because he had the audacity to criticize his favorite father. Surgery gained much more from the labors of this century than did the science of internal disease. Even lithotomy, which had been considered an impracticable operation, and to refrain from which Hippocrates regarded so essential, that *ne vero calculo laborantes secabo* was part of the oath which he administered to his pupils, was successfully performed. Germain Colot was the first regular surgeon to break through this patriarchal precept; for, strange to say, an operation so difficult and so dangerous, as to call forth such marked prohibition, had been practised for a long time previously by a set of itinerant quacks, whose ignorance of surgery could have held out to them but little chance of success. Louis XIth., upon the urgent entreaties of his court physicians, gave Colot permission to try his knife upon a condemned criminal, who happened to be labouring under calculus; and this man was so rapidly restored to health, being convalescent in the short space of fifteen days, that Colot's talents were rewarded with a pension, and lithotomy became in the hands of educated surgeons a regular part of surgical practice.

Two diseases made their appearance in England about this period, one of which has continued to ravage its inhabitants ever since, while the other would appear to have become extinct since the year 1575. The "*Sudor Anglicanus*" was in many respects a peculiar disease, exhibiting in its symptoms an anomalous compound of ague, plague, and putrid fever. It generally proved fatal in the course of 24 hours, and its partialities were very extraordinary. In its first six visits to this country in 1485, 1506, 1518, 1528, 1529, and 1551, it confined itself almost exclusively to the English, leaving foreigners, and even the Irish and Scotch, unmolested; while during its last attack in 1575, it carried off in 36 days no fewer than 510 persons, all of whom were males. To what cause its first appearance was attributable is unknown, and why it should have never since returned is equally inexplicable. Syphilis—the second of the diseases above alluded to—was almost equally destructive with the sweating sickness on its first ar-

rival into Europe. Such was the consternation it excited in Edinburgh, that the inhabitants, fancying it to be a contagious plague capable of spreading from person to person without immediate contact, banished all who became afflicted with it to the Island of Inch-Keith, where they were doomed to perform quarantine until restored to health. Marcellus Cumanus seems to have been the first who formally wrote upon this disease. His work was followed by one from Leonicensus, a Professor of Ferrara, but Casper Torella is more minute than either in describing the character of the ulcers, and the most suitable mode of treatment. His plan of cure consisted exclusively of purgatives, bleeding, baths, and diluents. Mercurial frictions he reprobates as highly deleterious, and he gives the formulæ of two mercurial ointments which, he says, had in the hands of empirics occasioned death to multitudes. Like the modern anti-mercurialists among ourselves, he treated syphilis as one of a purely inflammatory character, which mercury was more calculated to aggravate than cure. Jacobus Cataneus strongly advocates the cause of mercury, advising its employment until the gums swell, and he states it as his conviction, that the syphilitic virus may remain in the system for 30 years before it betrays its presence by external signs. Gonzalo Fernandez, becoming affected with this disease at the siege of Naples in 1794, and finding no practitioners in Italy acquainted with its management, embarked for the West Indies, where he understood syphilis was well known, and returned with Guaiacum as the herb which had accomplished his cure. If we are to believe that the venereal disease came to us from the West Indies, it is a fact somewhat curious in its coincidence, that one of the most popular, and certainly not least inactive counter-agents to this poison, should have been derived from the same quarter. The station, however, which mercury had assumed in the cure of syphilis, was not altered by the arrival of this new remedy; for both John de Vigo and Berengarius were in 1518 so highly successful in the use of mercurial frictions, that they made very large fortunes by pursuing this branch of practice alone.

At this period the preliminary ordeal, through which candidates for the medical profession were required to pass, was extremely loose and insufficient. The Bishops were vested with the important prerogative of admitting to the practice of medicine, within their respective dioceses, such as applied for examination; and as the clergy had at this time been almost entirely banished from the actual pale of the faculty, few seeking their advice in preference to that of regularly educated men, it is not difficult to conceive that it neither required much study nor talent to pass with eclat through such examinations, as these reverend prelates would find it convenient to undertake. Thomas Linacre, a native of Dover, who had enjoyed peculiar opportunities, while studying upon the Continent, of witnessing the consequences of such a wretched censorship, set about redressing this grievance, and from his influence with Henry VIIIth. through the interference of Cardinal Wolsey, our present College of Physicians was established in 1518, and was invested with the exclusive right of examining the pretensions of all, who desired to enter the profession. Linacre was made president of the College he had thus established, and upon his death, seven years afterwards, he bequeathed to it his house in Knight-Rider-street, where

all their meetings had hitherto been convened. The influence, which this establishment exerted upon the character of the profession, as well as upon the progress of medicine, was as great as it was sudden. Much fewer candidates applied for examination, because the test of their qualifications had been made much more rigid; and those, who were considered deserving of admission, generally confirmed the choice of the College by the rank and respectability of their future character. How far the same effects can be traced to the same source in the present day, it were deviating from our purpose to consider; but, however we may regard the College of Physicians, as it is now constituted and conducted, there can be no doubt but that the exigencies of the times which called it forth demanded the establishment of some such institution.

Three years after Linacre's decease, the celebrated Paracelsus began to lecture at Basil; and, although possessed of the *elixir vitæ*, which was said to have had the power of prolonging life to any period, like all other empirical impostors he stultified his pretensions in his own case, for he died of fever at the early age of 48. Fracastorius published a poem upon syphilis in 1530 at Verona, which was so classically written as to have been compared by tolerably competent judges to the Georgics of Virgil. Ambrose Paré published fifteen years afterwards his first work on the treatment of gun-shot wounds, in which he describes for the first time, at least with accuracy, the operation of restraining hæmorrhage by passing a ligature round the bleeding vessel. In 1583 Botallus' work on bloodletting made its appearance, and excited very general notice. At the commencement of the 16th century Peter Brissot, a physician of Poitou, met with violent opposition for having advocated bleeding from the same side with the inflamed part in the treatment of pleurisy; and Denys, physician to the then King of Portugal, not only denounced such practice as dangerous, but as destructive to the body as Luther's doctrines were to the soul. Many there were, however, who neither sanctioned bleeding on the same side with the disease, nor on that opposite, in the great majority of inflammations; and it was to combat the objections of this party that Botallus' Essay "*De Curatione per Sanguinis Missionem*," was penned. He advises bleeding in diarrhœa, dysentery, fever and plague; in pregnancy, where it was all but prohibited, he recommends it; he has the priority of Blackall in urging the use of the lancet in dropsy, and Dr. McIntosh may read with some advantage his remarks on its applicability to cases of quartan ague. Like most *monomedici*, however, he pushed his advocacy of an invaluable remedy to an extreme. He records cases in which he repeated the operation beyond the 18th time, and in the days of Le Sage venesection, by being abused, had become so obnoxious to censure, that the French satirist makes Dr. Sangrado, in his History of Gil Blas, the ridiculous representative of the Botallus party.

While medicine and surgery were thus rapidly advancing towards a more perfect state, anatomy was not neglected. It was in the 16th century that Servetus in his work *De Christianismi Restitutione*, laid the foundation-stone of that superstructure, which Harvey afterwards raised on the circulation of the blood. Some, from an over zeal for our illustrious countryman, have endeavoured to deny that any thing was known upon this subject

before his day ; but such advocacy is injudicious, and tends only to lower a reputation which is sufficiently unassailable on higher grounds. That Servetus knew something of the pulmonary circulation there cannot be a doubt in the minds of those, who have perused the work to which allusion has been made, and we are not quite satisfied that the chemical alterations, which the venous blood experiences in the lungs were totally unknown to him. During this century the Pancreas was first so called and described by Guinterius ; the olfactory nerves are traced by Dryander ; the great work of Vesalius, "*De Humani Corporis Fabrica*," was published ; Realdus Columbus discovered the tunica innominata of the eye ; Ingrassias the stapes of the ear, and the names of Fallopius, Eustachius, Varolius, Cæsalpinus, and Fabricius, require only to be enumerated, to show the progress which anatomy was making at this period.

Early in the 17th century the writings of Van Helmont began to attract the notice of the profession. Forgetting the reverence which his predecessors entertained for the doctrines of Galen, he openly attacked the writings of this Father, and after a considerable contest succeeded in shewing that his hypothesis of the four qualities, with their four degrees, upon the existence of which he had erected his entire system, was perfectly gratuitous and fanciful. The practice, to which this system led, he also severely criticised, and as chemistry was his favorite science, like his predecessor Paracelsus, he referred every fact to some chemical law, and solved every difficulty by some chemical principle. For many years the chemical school, which was thus established, possessed considerable popularity ; but, although afterwards much improved upon by Francis Sylvius, the works of Van Helmont are now only regarded as speculative curiosities.

About the period of his death Glisson, the anatomist, was in the habit of meeting some literary friends in London for the purpose of discussing subjects connected with philosophy ; but their numbers so increased, and the mutual advantages which were derived from these primitive *conversazioni*, encouraged Glisson to apply to Government for a royal charter, which was granted to them after the Restoration. The *Royal Society* thus founded by a few enterprising individuals, whose first object in associating was principally entertainment, soon attracted the notice of all Europe, and until the honors, which it was privileged to confer, began to be indiscriminately lavished upon many, whose only claim was enormous wealth, patrician rank, or political influence, to be a fellow or even member of this body, was regarded one of the highest honors, which could reward industry or distinguish merit. About this time the forceps was reaping a golden harvest to the Chamberlains in the practice of midwifery, and from Julian Clement's success in the accouchement of the Duchess de la Valière, it became fashionable to substitute male for female practitioners in such cases. Clement simplified the operation of turning in false presentations, he proposed rupturing the membranes during the first stage of labor in cases of hæmorrhage, and he abolished many very injurious customs, which had been adopted in the treatment of the puerperal state, from the persuasion that lying-in women should be considered in all respects as labouring under the influence of ordinary disease. Deventer endeavoured to purchase Chamberlain's secret, but finding its price too extravagant for his means, he took

up the cases in which Chamberlain had proved unfortunate, and thus strove to compensate his loss by shewing the injurious effects of instrumental midwifery. In difficult labours, where the pelvis seemed confined, Daventer used to enlarge the inferior outlet, by pushing back the os cœcygis, and when an arm presented he turned the child and delivered by the feet, in place of adopting the advice of preceding writers, which recommended amputation of the limb.

In 1622 Asellius claimed the discovery of the lacteals, although these vessels had certainly been described by previous anatomists; six years afterwards, Harvey laboriously demonstrated the circulation of the blood; and in 1651, Rudbeck contested with Bartholine and Joliffe the merit of first describing the lymphatic system. A century before, the thoracic duct had been seen by Eustachius, but Pecquet, because he demonstrated how it was formed by the conjunction of innumerable branches arising from the intestines, and how it terminated, not in the liver as had been imagined, but in the veins near the heart, has been very generally regarded as the discoverer. In 1656 Wharton published his elaborate treatise on the glands; the year after Highmore laid claim to the discovery of the sinus which now bears his name, although already described by Casserius; and the parotid duct has been christened with the name of Steno, because he described it in 1662, although Blasius had previously pointed it out to him. It has been often said that posterity are generally just in their rewards of merit, but if he, who is a believer in this proverb, trace attentively the history of discoveries, few popular dogmata will be found more baseless. In the course of this article we have occasionally noticed some instances corroborative of this opinion, and it might be doing a service to some of our *original writers* in the present day, were we at a future opportunity to enter more largely into detail.

Malpighi by his microscope and Ruysch by his injections threw a new light upon many parts, which had been but imperfectly understood before, and brought many others into view which had been hitherto overlooked. The opinions of these two distinguished men on the ultimate form of glandular structure gave rise to a controversy, which burned with vigor for a considerable time, and which proved the means of eliciting much valuable light upon minute anatomy. Ruysch died in his 93d year, and whether we contemplate the value of his discoveries, the splendor of his preparations, or the number of his works, we have no anatomist of even more modern days, whose services to that branch of the profession stand so pre-eminently unrivalled. Meibomius, Borelli, Swammerdam, De Graaf and Bonetus were working assiduously at the same time with Ruysch, and although less successful in their labours their discoveries were neither few, nor unimportant. Our countryman Cowper, over-anxious to descend along the stream of time in company with such names, involved himself in an uncreditable controversy with Bidloo; for having meanly pirated a number of his plates.

With so many vestiges of rapid progress, as we have now hastily traced, and the principal only have been specified, it may appear strange that Sydenham should have thought so contemptibly of the state of medicine in his time, that when consulted as to the best authors to be perused, he advised the inquirer to "read Don Quixote"! But, while the words of this reply

indicate the state of feeling which gave rise to it, we cannot deny but that many of Sydenham's cotemporaries, not to mention his predecessors, were as romantic and as fanciful as was this chivalrous knight. Borelli was at this very moment, in his chair at Pisa, labouring to explain all the functions of life upon purely mathematical principles, and Borri, who was one of the most impudent impostors, which ever infested society, was travelling in state through the principal Courts of Europe, having for his patients potentates and kings! No less a period than two thousand years had now elapsed, since the days of Hippocrates, and theory and speculation were still as liberally indulged in, as though that Grecian sage had never inculcated the importance of cool and deliberate observation. One party fancied that they could explain all the phenomena of disease by mechanical, others upon chemical principles, and believing that the human body was subject to all the laws of dead matter, they had almost wholly excluded from their calculations the principle and influence of life. Sydenham might, therefore, justly say that there was neither certainty nor satisfaction in the medical knowledge of his day, and that the history of the Knight of La Mancha might be consulted, if not with almost as much profit, at least with quite as much entertainment. He substituted patient observation for hasty inference, sober induction for intemperate generalization, and the careful study of natural appearances for the faithless pencilling of a sanguine fancy. His histories of small-pox, gout and measles are not to be excelled by any descriptions of the present day, and his view of fever and of other acute diseases is much more agreeable to nature and more conducive to practice, than many which within the last few years it has been our lot to criticise.

About 20 years after the death of Sydenham, Herman Boerhaave succeeded Drelincourt in the chair of medicine at the University of Leyden; and, although in the course of a few years he became the head of medical instruction in every department in that city, as a physician he was consulted by the inhabitants of every country, as a chemist he was second only to Stahl, and his lectures upon botany attracted much attention. His doctrines rapidly spread over Europe, he was elected a Fellow of the Royal Society, and a Foreign Associate of the Royal Academy of Sciences at Paris. Contemporaneous with Boerhaave was our illustrious countryman Mead, who attained an almost equal degree of celebrity by the number of his works and the distinguished superiority of his talents. Being applied to by the Lords of the regency, when the plague was raging with violence at Marseilles in 1719, to inquire into the best means of preventing its introduction into England, he published a treatise on this disease in the following year, which was bought up with such avidity, that no fewer than seven editions were purchased in twelve months. His work on poisons is a standard production at even the present day, although many of his views as to their operation are too mechanical; and his treatise on sol-lunar influence should be consulted by those, who dispute the agency of the moon upon the propagation and progress of disease.

The beginning of the 18th century was distinguished by the birth of Haller. This most illustrious philosopher commenced his career of fame when only ten years old, by writing a satire in Latin verse against his tutor; and during the remaining 58 years of his active life, his contributions to

almost every branch of medical science it were a task even to enumerate. Before his day physiology was scarcely known as a distinct subject for investigation, but by carefully arranging the scattered facts pertaining to it which had been previously ascertained, and by instituting experiments upon points which had either been before unexamined or unsettled, the science of function began to assume in his hands a specific form.

About ten years before Haller's death medicine began to set up her schools in the New World, and to rival Europe in the celebrity of her sons. Lectures on anatomy and surgery were first delivered by Dr. Shippen in 1764, in Philadelphia; in 1765 practice of physic was taught by Dr. Morgan; in 1768 Dr. Kuhn added botany and materia medica to the other subjects for lecture; and 1769 strengthened this rising seminary with the distinguished talents of Benjamin Rush. In 1791 the medical school of Philadelphia was incorporated with the University of Pennsylvania, Dr. Rush was appointed Professor of the Institutes and Practice of Medicine, and from that time forward our transatlantic brethren have not only been gradually rising in reputation, but they have been keeping tolerably equal pace with the parent country both in the number and value of their writings.

With this running outline of Mr. Moir's and Dr. Hamilton's works we must drop our pen, and as we have refrained from interrupting the continuity of our historical sketch by any passing observations upon the historians themselves, we cannot dismiss the subject without a word or two upon the style and conduct of their respective performances. In medical as well as in general history, fidelity of description, beauty of expression, a discriminating selection of subject, and an impartial review of doubtful points are the essential requisites of an able and faithful historian, and we are happy to say that in several of these respects Dr. Hamilton's pen is highly qualified. The language he employs is beautiful and occasionally eloquent, his impartiality is obvious throughout, he is often very fortunate in the selection of his subjects, and when the sterility of the soil, through which he is occasionally compelled to travel, would give an aridity and insignificance to his narrative, imagination not unfrequently gathers flowers from more favoured districts, and strewing them beneath the traveller's feet thus conceals the nakedness of the land.

Many points, it must be confessed, in the history of our profession are any thing but inviting to the historian's pen. Theories very vaguely conceived and still more imperfectly supported, facts obscurely ascertained and fancies crude as they are extravagant, are too often the only materials which can be discovered, during lengthened periods in the progress of our art; and the very nature of the science, abstractedly considered, throws an uninviting sameness of character over even the brightest days in the sunshine of its history. Considerable judgment and more tact are, therefore, necessary to impart sufficient interest to a history of medicine, which is written for general readers; and if we say that the efforts of Dr. Hamilton have proved somewhat unsuccessful, the severity of the criticism will be considerably mellowed by considering the difficulties which the author has had to encounter to avoid it. Had the Dr. passed more lightly over the early periods of his subject, when there was nothing but darkness, confusion and uncertainty, and dwelt more largely upon men and doctrines nearer to our

own day ; had he taken up more formally the different sects which at various times arose, and while tracing their rise and fall, had he used them as the bond of transition by which his narrative ran from century to century, the professional reader had been more instructed, and the general reader would not have been less entertained. Half a dozen writers at the close of the 18th century would have furnished a richer subject for observation than twice as many cycles in the centre of the dark ages ; and yet the names and achievements of Haller, Rush, Franklin, Heberden, Monro, Black, Cullen, Brown, Gregory, Hunter, Baillie, and Bell are passed over in almost as many pages, while Boivius, Paracelsus, Asclepiades, Themison, Thessalus, Borri and such quacks and mountebanks occupy as much space and receive as much attention.

As Mr. Moir confined himself to an historical sketch of ancient medicine, he was necessarily limited by his subject ; but Dr. Hamilton's pen was not so restricted, and if pleasure and improvement be the objects contemplated by the historian, either would be more surely attained by making the interest of the period, or the value of the writer, the measure of the limits to which his notice should extend. As a manual of the ancient history of medicine Mr. Moir's is a concise, correct and judicious performance, which is not less elegant than Dr. Hamilton's, although it is more condensed. It may be read with more ease than Dr. Millar's learned and laborious history, while it may be consulted with equal profit ; and in the two volumes of Dr. Hamilton the reader will find as much of the substance of Sprengel's works, as may make him sufficiently well acquainted with the different eras in the annals of his profession, without toiling over the pages of that voluminous chronicler.

J. D.

VIII.

AN ATTEMPT TO SIMPLIFY THE TREATMENT OF SEXUAL DISEASES.

By *James Thorn*, Member of the Royal College of Surgeons. 8vo. pp. 240. Highley, London, 1831.

If there be wisdom in the multitude of books upon a subject, then in syphilis are we wise. To mention the mere names of the authors on this most prolific topic, were to engage in a task as arduous as that of Homer, when he invoked a hundred tongues and a voice of brass to aid him in his somewhat lengthy catalogue of the Grecian ships. One would imagine that every debatable point had been debated, that every practical question had been settled, that theorists could theorize no longer, that routine practitioners had made up their minds how to cure or to kill. Fortunately for physic and its professors that millenium is not arrived ; fortunately there yet remain doubts which will never be

solved, books to be written, men to be infected, and money to be made. So long as men differ in the constitution of their minds as well as in the conformation of their bodies, so long will there be disputable points in medicine; and so long will syphilis be one of them. It must be admitted that this investigation is surrounded with peculiar difficulties, with difficulties, we say, inherent in itself. Independent of the natural complexities of a disease which assumes many forms, is much influenced by constitutional peculiarities, and modified by remedial measures, the inquirer is met at almost every step by a disposition to deceive on the part of the patient, unequalled under other circumstances. How fallacious is the syphilitic history of a case, how little is narration of bygone events to be depended on. In short, we repeat that it requires no prophet to foretell, that the disputes upon syphilis which have heretofore reigned are not likely to be very materially curtailed.

Mr. Thorn, the author of the volume whose title is registered above is an industrious and indefatigable young surgeon. Many of our readers may probably remember that this gentleman directed the attention of the professional public some three years ago, to the employment of an extract of copaiba in the treatment of gonorrhœa. As the author makes no pretension to important discoveries or brilliant hypotheses, starts few new facts and fewer speculations, we shall not subject his work to the ordeal of a methodic critique. An extract or two will afford a sample of the whole, and these, though not absolutely taken at random, are certainly not selected as the very best passages that might be brought forward. Here is a description of inflammation of the glans penis.

“ Habitual uncleanness of the penis, the continued contact of the mucous matter and of urine under the prepuce, intercourse too frequent, or with a woman whose vagina is very narrow, and whose mucous membrane is inflamed, are the occasional causes of this.

The glans is, in this case, redder, shining, swelled, and more tender than usual, and the patient feels an itching and burning heat. Sometimes we observe a decided ulceration. At other times the integuments are entire; but, on comparing them, we perceive some puriform matter dropping from an indefinite number of small points. The glans as well as the whole penis is swelled, kept either partly or wholly erected, and the least touch, or even the motion in walking, gives severe pain.

If, in this case, the inflammation spreads to the *meatus urinarius*, pain is produced by the passage of urine.

If it fixes on the *corona glandis*, the secretion, first suppressed, afterwards takes place abundantly; there is also matter exhaled by the surface of the glans; and, from their union, a white, yellowish, or muddy fluid is produced at the surface of the prepuce, which is at first thick and afterwards serous.

Sometimes the skin of the glans dries up and falls off in flakes.

In this stage the inflammation is but trifling, and gives way quickly. It nevertheless, generally extends to the prepuce, and may produce inflammation of the testicles and of the glands of the groin.”

In the course of the urethral inflammation, the surface of the glans becomes sleek, semi-transparent, livid and red, particularly under the *meatus urinarius*. Sometimes it seems excoriated, is very tender, and emits a yellow fœtid matter, at first thick, then liquid.

The swelling of the glans may proceed so far, that the patient loses the power of drawing back the prepuce, when it is long and narrow, or may even be unable to bring it back over the glans, after having made it pass the corona glandis, which constitutes phimosis in the first case and paraphimosis in the second, both already described as arising from another and more usual cause.

Treatment of Inflammation of the Glans. Superficial inflammation, without ulceration, in the acute state, requires a soothing regimen, with mild aperients, frequent fomentation of the parts, and, above all, the application of two or three leeches when severe.

The chronic state first requires emollient applications, and then a solution of the acetate of lead or zinc.

In both cases, cooling drinks at first, then slightly aromatic watery decoction, are used; and every thing ought to be avoided, which might otherwise irritate the urinary and digestive organs." 65.

Inflammation of the Genital Organs in Women. Our author observes that the inflammatory symptoms vary according to the situation, the mode of sensibility, and the functions of the part affected. There are, therefore, four principal varieties, which may exist independently of each other, or may be connected.

"In the first case the inflammation occupies the vagina only, the canal becomes swelled, the patient feels in its whole extent a particular sensation of constriction, and the orifice is sometimes so swelled as to prevent the introduction of the finger. The mucous membrane is at first dry, or but very little moistened, but the pain and heat soon increase in intensity, and a discharge takes place.

This state of the disease is less troublesome, but not more common than others.

The inflammation begins at the entrance of the vagina, its more sensible part, and it communicates by degrees to the extent of this canal in such a manner, as to occupy a considerable portion of the mucous membrane.

In the second variety, the irritation soon extends itself to the urethra, to the clitoris, to the extremity of the vulva, and even to the pubis. Generally the swelling is very painful; the woman feels a sensation similar to that which is produced by the presence of a foreign body, having a continual tendency to extend beyond the vulva, and the urine, in passing, produces heat, tension, and disagreeable stiffness, which soon becomes a severe pain.

All these symptoms increase progressively as the inflammation goes on. Touching the parts, and the contact of the dress, becomes insupportable; frequent erections of the clitoris takes place, which add very much to the torments of the patient; and the secretion which is trifling at the beginning, now becomes very abundant.

The urethra itself is the seat of the inflammation in the third variety. The symptoms are then the same as in men, at least as far as concerns the influence of the disease in passing the urine, which occasions at first a tickling, accompanied with heat; and, in the greatest number of cases, the sensibility of the canal increases in a few days, the desire of making water becomes frequent, its passage occasions great pain, and an abundant discharge takes place from the urethra.

At last, in the fourth variety, the nymphæ, the labæ, the posterior commissure of the vulva, and the fossa navicularis, are the parts affected with the inflammation.

There is a difficulty attending this disease in the female, that of deciding when she has the disease, and when she is cured. When the woman has an intention to deceive, it is far from easy to come to a decision on these points. In the commencement there will usually be itching and titillation of the orifice of the urethra, some swelling of the labiæ and nymphæ, and the part will often appear more red and injected.

Foreign substances introduced and left in the vagina have often caused intense and sometimes chronic inflammation. Inquiry, therefore, should always be made with due reserve, as to the possibility of a cause of this kind, whenever there is the least probability of it.

Frequently inflammation of the vagina is consequent upon that of the womb. It is important to attend to this point.

All running from the vagina, indeed, depends upon the injury done to it or to the womb, in consequence of coition or some other cause. All running then of this kind offers various problems to solve.

Whenever a woman, therefore, has an intent of concealing the cause of the running which she experiences, we are never certain on what circumstance it depends; and nothing is more doubtful than the origin of discharge when we would discover it by questions.

The diseased parts must therefore be examined by feeling and inspection, instead of depending upon vain theories or false answers. What is material, is not so much to know whether the malady proceeds from coition, as its extent and intensity, and whether the womb is affected by it, and if it is not the sole source of the matter which runs from the vagina.

Even when the woman acknowledges that it proceeds from coition we must nevertheless make sure that the womb does not partake of it, particularly when it is of long standing." 132.

The following is the summary of the treatment to be employed.

"These inflammations get well often when left to themselves, provided the patients adhere to a proper diet, and keep the affected parts from the action of causes capable of increasing their state of irritation.

Art may, however, accelerate the cure, soothe the violence of the symptoms, and remedy those which often shew themselves when the proper rules have been violated. With this view we must follow the same course as in inflammation of the urethra in man.

The woman ought, from the commencement, to avoid every thing which can increase the inflammation, and determine the flow of blood to the affected organs, such as exercise on horseback, walking, the act of coition, voluptuous or excited feelings, wine or spirits, high-seasoned food, &c.

Rest and the recumbent position are equally necessary in the early period of the complaint.

Care, in respect to cleanliness, is still more necessary in women than in men.

The antiphlogistic method is proper, especially where the irritation is propagated to the urinary organs, when the patient experiences acute pain, fever, and difficulty of making water.

Bleeding from the foot, leeches to the vulva, warm baths, general or partial vapour bath, injections of warm water or a mucilaginous liquid, emollient washings, mild laxatives, as cassia pulp and castor oil, repose in bed, acidulated drinks, strict diet, or at least a very soothing and unirritating diet, are the means which diminish, in a few days, the inflammatory symptoms.

In addition to these means the extract of copaiba must be given in doses of from ten to fifteen grains three times a day, and the *Decoct. Tormentill.* used as an injection very frequently.

It is useful to anoint the perineum, and the internal part of the thighs, with white cerate, to guard against the contact of the puriform excretion which would irritate them; but

if recourse is had early to the use of Tormentilla decoction as a lotion, and injection of the internal parts, these accidents seldom occur.

If the discharge continues in spite of these remedies, sea-bathing will be found to contribute to the completion of the cure." 138.

ULCERS OF THE GENITAL ORGANS.

We cannot afford space nor time to follow Mr. Thorn seriatim through this portion of his work, its better part. It is chiefly occupied with a sort of running commentary on Messrs. Evans and Carmichael, and though judicious, we find but little originality. We shall content ourselves with a gleaning here and there. In the following case, our author conceives that the irritation and ulceration produced by pediculi were followed by secondary symptoms. We give the case as we find it, but we cannot forbear from remarking that, for very obvious reasons, it is far from conclusive.

"Mr. S. ætatis 23, consulted me in January 1829, complaining of considerable irritation, and uneasiness in the pubis, which, on examination, was clearly seen to arise from the existence of pediculi in that part, and from the account he gave, it was probable these animals had been there for several weeks.

The skin of the pubis in many parts was covered with scales, and bled from those points where the pediculi had penetrated.

He had never contracted a gonorrhœa, or suffered from any form of ulceration of the genital organs previous to this time. I directed him to apply the following lotion.

Hydr. Oxymuriat. grs. ix.
Sp. Vin. Rectific. ʒj.
Aqua Distill. f. ʒiij. M. ft. Lotio.

A week afterwards, this gentleman called on me again, when it appeared that the pediculi were destroyed, but from several points of ulceration running into each other, two tolerably large sores were formed upon the pubis. The hair was removed from the part, and the ulcer dressed with *Cerat. Merc. Præp. Argent. Nitras*, in consequence of the indolent character they assumed, and under this treatment, in about ten days, they healed. Six weeks afterwards I saw this gentleman, when he had an eruption over the whole of his body of a papular character, which had every appearance of that form which is usually denominated syphilitic, and the sequela of certain ulcers of the generative organs. He had considerable pain and uneasiness in the throat, the tonsils were exceedingly swollen, and ulceration was extending rapidly towards the soft palate.

Having seen the patient in the commencement, I was very desirous of watching the train of symptoms following the ulcers, being fully convinced that the primary ulcers of the pubis were produced solely by the pediculi having been suffered to exist for some time.

The strictest attention was paid to the regulation of the digestive functions and general health, he was ordered a gargle of solution of Chloruret of Soda to the throat, the use of the warm bath daily, and to take the *Decoct. Sarsa. Comp.*; under this plan all the symptoms got well in about three weeks." 157.

With one more extract on the effects of iodine frictions in the treatment of buboes we must conclude.

"One of the most useful applications is iodine, as it is active, has the advantage of being easily managed, and acts quite locally.

We may apply the ointment of the hydriodate of potash, but the tincture of iodine is much more useful. It is best used by itself in frictions. When incorporated in lard; or suspended in an oily menstruum, it is seldom efficacious.

The doses employed are of one or two drachms per diem, according to the size of the tumour, its duration, and excitability of the patient. The frictions ought to be repeated frequently in the course of the day, and continued each time five or six minutes.

The effect which it produces is to make the skin yellow, to dry up the epidermis, which falls off in large scales, to occasion prickling, shooting, and also slight pains, to increase at length the organic action of the parts, and consequently to favour the resolution of the adjacent tumours.

A poultice must be applied immediately after the friction.

When the frictions are carefully made, we usually observe a diminution of the swelling at the end of four or five days; and often at the end of from eight to ten days the cure is completed.

It often happens, however, that the tumours, in consequence of their magnitude or long duration, require much more time, and sometimes prove refractory.

In these cases the internal use of iodine may be combined advantageously with frictions, in doses of fifteen, twenty, or thirty drops of the Tincture, night and morning, in any convenient vehicle. The excitement of the intestines which it occasions has an alterative effect, and assists the resolution.

When iodine causes acute pain its use may be suspended for a time, and again had recourse to in a diminished dose.

If the skin becomes red, painful, and inflamed, leeches must be used.

In this manner the excitation is kept up in a manner suitable to resolution, and preventing the formation of pus.

Iodine has been used with great advantage for removing the hardness and swelling which remain after the cure of ulcerated buboes." 229.

Here, as we have already said, we must conclude. Having placed several extracts before our readers, we need scarcely pronounce a formal sentence. Whilst we consider the work not undeserving of approbation, particularly as being the production of an industrious and meritorious young man, we cannot conceal from the author the fact, that he has yet much to learn before he can become an accomplished writer. The style is indifferent; the composition too generally careless; not seldom incorrect. The errors of the press are multifarious, and on more than one occasion we have noticed sins against the ordinary rules of grammar. For such faults as these we hold that authors are entitled to some censure, as a little attention would correct them. We hope, on some future opportunity, to meet Mr. T. again in print; and we trust that the hints which we have given in kindness will not be thrown away.

IX.

OBSERVATIONS ON DISTORTIONS OF THE SPINE; WITH A FEW REMARKS ON DEFORMITIES OF THE LEGS. By *Lionel J. Beale*, Member of the College of Surgeons, &c. 8vo, stitched, pp. 102, 1831.

THIS is the second essay of Mr. Beale on Spinal Distortions; or rather is an appendix to one which he published some little time ago. Works on this subject have been surprisingly numerous of late years, a circumstance owing in great measure, no doubt, to the good fortune which attended the publication of the late Mr. Shaw. Our profession is crowded with individuals naturally anxious for success. The competition is great, the struggle severe, the opportunities not numerous. One great road to fame and to riches is through the regions of the press, that almost omnipotent power. All are eager to write, but many are puzzled on what to exercise the pen. Some fortunate man makes a lucky hit; he is the envy of his brethren; he may make his fortune, but his success proves an *ignis fatuus* to others, and lures them to their doom. A discovery of this kind is like the discovery of an oyster-bank, the spot is instantly crowded with dredgers, and perhaps the discoverer himself is actually elbowed out. This is no false picture of medical life. A popular book is sure to be followed by half a dozen of a similar description pressing hard upon its heels, till the public become sickened, the market exhibits a glut, and the disease brings its remedy. We do not assert that this is the case with respect to books upon the spine; but we have lately been favoured with a sufficient number of them.

Mr. Beale appears to be a sensible man, not rash in drawing conclusions, nor too eager to admit every statement as fact. The present pamphlet is intended as a sort of feeler for a second edition of the former publication. If it meets with no criticism, good; if objections are started, they must be allowed or answered. Such is the profession of the author in his preface. The tract, as he terms it, is of popular construction: that is, tibia is called leg-bone, and there is a frontispiece lithograph of a distorted girl, with her *chémise en bas*, and a distorted skeleton beside her. Such appears to be the established mode of procedure in these cases, and though, professionally speaking, exceptions might be taken to the continuance of the practice, we are not disposed to be censorious, and shall make no further observations on the matter. It cannot be supposed that, under these circumstances, an analysis is necessary; it would be preposterous. We may select, however, some isolated passages for the information of our

readers. The following sentiments on the use of instruments in cases of lateral curvature are judicious.

"In permanent lateral curvature, where all hope of cure must be abandoned, where no means can raise the spine to its proper position, steel supports become essential, not only for the ease of the individual, but to prevent the mischief from increasing. I have met with many cases where the deformity has increased, even after the age of 30, and in which steel supports would have been very beneficial. Prejudices against the use of such instruments are almost universal among medical men. I call them prejudices, because they are unfounded in reason, because they are conclusions drawn from witnessing the abuse of mechanical means, and because they are held in deference to the advice of surgeons, who have deprecated their use only because they themselves have never employed them. The late Mr. Shaw, in his earlier publications, was a great enemy to all mechanical support of the spine, but length of experience induced him to alter his opinions on this subject.

The attempts to cure spinal deformity by the sole aid of instruments, and the unfortunate results which have too often followed, has raised so great a dislike to mechanical aid, that among our most celebrated surgeons such means are entirely discarded. That many cases of lateral curvature have received no benefit from the long-continued use of steel stays and other supports I am ready to admit; but the reason has been, that no other means were employed, in combination with the use of instruments, to strengthen the muscles, and thus enable them, without artificial aid, to retain the spine in its proper position. Supports have been employed, under the notion that if the body could for a long time be kept erect, it would, when growth had ceased, continue upright without assistance, and in some cases this has occurred. Some girls become awry in consequence of the rapidity of their growth, the bones are elongated, the muscles are consequently lengthened by the separation of their two extremities, and it is some time before their breadth measures in proportion to their length. In such cases, if, by any means, either the recumbent posture or the use of steel supports, the spine can be kept erect until growth ceases, and the muscles are fully developed, then all fear of lateral curvature will have ceased. But in the majority of cases where spine-supporters have been employed, the end has appeared to be gained by the mere concealment of the deformity; and when the unfortunate patient has attempted to lay aside her artificial support, she has found herself weaker than ever, and of necessity obliged to continue it all her life.

Instruments to support the spine are useful as adjuvants to the treatment, so long as the period of life affords a hope of cure, and afterwards they are useful in preventing an increase of deformity, and as conducing greatly to the comfort of the wearer. The obvious remedy, in that variety of lateral curvature of which we are speaking, is to improve the general health and strength, and more especially to invigorate the muscles of the spine. Now it must be apparent, that an instrument which will at all impede the motions of the spine, will prevent the possibility of effecting a cure of the distortion, and such is the case with all the machines invented for the removal, or, more properly speaking, the concealment of spinal deformity. There are

few cases of lateral curvature which may not be cured, if properly treated before the cessation of growth. The incurable cases are those resulting from contractions within the chest, consequent on diseased lungs, and those dependent on the effects of inflammation of the cartilages and ligaments, where rigid contractions have taken place among these parts and the bones;—but these cases are few, in comparison with the large number dependent on the other causes enumerated.” 51.

The chief point in the treatment of these cases is exercise; but the body, when at rest, must be supported, and, with this object, Mr. Beale had an instrument constructed by Mr. Eagland, calculated, in his opinion, to attain the ends proposed.

“This instrument supports the spine by embracing the ribs, and holding up the axillæ on a kind of crutch, the lower end of which rests on the seat, so that, while the patient is at her meals, or taking any lessons, the muscles of the back are relieved from all exertion. It slips over the dress, is adjusted in a minute and as soon removed. By this means and the recumbent position alternately during the intervals of exercise, the spine is never suffered to relax into that serpentine form which constitutes lateral curvature. This serpentine form is often apparent in the very earliest stage of lateral curvature, and the ingenious theory of Mr. Bell will not apply in all cases. Mr. Bell asserts that the primary curvature is in the loins, and that the upper curves are mere effects of the efforts of the muscles to restore the equilibrium. Mr. Bell’s own illustration of the soldier standing at ease, when the spine assumes this serpentine form, strongly favours the opinion that, in some cases at least, the alternate curves are not consecutive, but primary, and of simultaneous origin. Weakly girls frequently indulge in this standing at ease; at length, by constant habit and too much adherence to study, the unnatural form becomes fixed, and, if neglected, after a time permanent. In most of these cases, a period of some years elapses before the distortion may be considered permanent. I have not met with one before the age of 20, where the spine, by extension, could not immediately be made more straight, proving the possibility, by proper means, of improving the form, if not of entirely rectifying it. In persons who have one leg shorter than the other, the spine is thrown into a serpentine form at every step, and yet individuals thus circumstanced pass through life without permanent lateral curvature. I instance these cases to shew how long a time it takes to make lateral curvature of the spine rigid and permanent, provided there be no disease in the bones, ligaments and cartilages.

The health always suffers in cases of lateral curvature primarily or secondarily, and it is surprising to witness the effect of exercise in improving it. Where any degree of perseverance in exercise is observed, the health speedily improves, and, if the diet be at the same time judicious, little or no medicine will be required. The great desideratum in these cases is perseverance, with which almost all may be benefited, but without it no method of treatment will avail. In the exercises usually adopted it is essential to fix the pelvis, in order that the body should bend at the loins and the muscles of the back be called into action, otherwise the whole trunk, with the pelvis, will move on the heads of the thigh-bones. This circum-

stance will also point out the absurdity of expecting benefit to result from exercise while the patient is wearing a steel support, the very object of which is to fix the spine immoveably on the pelvis, and thus prevent all possibility of exercise to the muscles of the back and loins. When a mechanical support is used, it should be in the intervals of exercise alone, to be taken off on every occasion when the exercises are resumed." 54.

The following picture of the effects of tight lacing is calculated to inspire horror in the minds of those deluded and deluding mothers, and self-immolated daughters, who offer up their vows to the savage god-head of Fashion. This potent deity, beneath the wheels of whose car more victims are crushed, than ever prostrated their bodies before the Jaggernaut in the Carnatic, is unquestionably a warm friend to the spine-doctors.

"Let us examine the action of one only of the numerous muscles connected with the chest and spine, the *latissimus dorsi*, which arises from the common tendon of the loins; the fleshy part of this muscle encircles the lower and back part of the chest, passes over the corner of the shoulder-blade, from which it receives a fleshy bundle; and as it passes over the ribs, it sends some tendinous slips to them: the lower fibres of this large muscle ascend, the upper ones go directly across, the flat tendon produced by the junction of these fibres forms the back part of the arm-pit, and is inserted into the arm-bone. The action of this muscle is to draw down the arm, and when either arm is fixed, it draws the spine to one side or the other, as in climbing, &c. How can this muscle act as it should do under the compression of tight stays? The same question would apply to others of the muscles of the spine and chest. The whole back is clothed with strong muscles, its cavities are crossed by many smaller ones related to the ribs and spine, and the actions of all are more or less impeded by the compression of stays. Look at the withered legs of the beggars in our streets, notoriously produced by tight bandages—tight stays produce a similar effect in a less degree, but sufficient to weaken the power of those muscles whose duty it is to maintain the natural position of the spine.

Not only does tight lacing act directly in this manner, but indirectly it operates in diminishing muscular vigour, by impeding respiration. It is well known that muscular power bears a relative proportion to the freedom of respiration, animals having the highest developement of the respiratory organs, being the most powerful in muscular force. Tight stays compress the ribs together, and prevent the play of the respiratory muscles—when applied during the growth of the body, they prevent the developement of the chest, and thus lay the foundation of many pectoral diseases. Much more might be said on the subject—to expect that stays will be banished from the female dress would be idle, but I think few mothers who will reflect on the evils of tight lacing in growing girls, will hesitate to defer at least to the latest moment, the vanity of forming their children of that shape which is most convenient to the dress-maker; for really the great use of stays, from all I can learn on the subject, appears to be, that they form the most suitable ground-work for the attachment of the manufactures of these

artists. The female form, at least in youth, requires no artificial aid to improve it: who would think of putting stays on the Venus de Medici!" 46.

The latter portion of this little work is dedicated to cases, and to the consideration of what has been denominated spinal irritation. Nothing new is offered, and having lately devoted many pages to the works of Mr. Tate, Mr. Teale, and Dr. Addison on this affection, we must hold ourselves excused for not re-entering upon it at present. At the same time we must again protest against a hasty manner of concluding that the spine is the source of the anomalous pains which young women suffer from the crown of the head to the extremity of the toes, simply because they complain of much uneasiness on pressure of particular portions of the spine. The fact is that the great majority of these patients will refer the sources of their sufferings to any point to which their attention is particularly directed by their medical attendants. On this we speak advisedly, and are prepared to substantiate by proof, if necessary, what we have asserted.

X.

A VADE-MECUM OF MORBID ANATOMY, MEDICAL AND CHIRURGICAL; WITH PATHOLOGICAL OBSERVATIONS AND SYMPTOMS. Illustrated by upwards of 250 Drawings. Large 8vo. pp. 51. Burgess and Hill, London, 1831.

To insist on the advantages resulting from the cultivation of morbid anatomy would be a work of supererogation at the present time, when they are felt and appreciated by almost every member of the profession. Neither is it germane to our purpose to point out the ill-consequences which are likely to result from an over-weening fondness for such researches, nor to show how a great good may be converted into a great evil. Many able works upon morbid anatomy, and delineations of structural alterations have been published, and years must elapse before we shall be enabled to excel Cruvelhier and Baillie in this department. But a manual or vade-mecum has hitherto been wanting, and, considering the rapidity with which manuals are produced and the avidity with which they are purchased, it is somewhat surprising that morbid anatomy has not hitherto possessed one. The deficiency is now supplied, and the anonymous author of the present work deserves encouragement for the laudable attempt which he has made to accommodate the junior portion of our brethren. It contains observations on, with illustrations of the changes of structure

found in the brain, thoracic, abdominal, and pelvic viscera, and of the organs of generation in both sexes. Appended to each plate is a brief description of the symptoms and morbid anatomy of the disease represented. The plates are lithographed, the accompanying descriptions succinct and tolerably satisfactory. We have said already that the author deserves commendation, both for the conception and execution of his undertaking; but we should deceive our readers and himself if we declared that it was not susceptible of improvement. An extract or two will enable the profession to judge for itself. We will select, at hazard, the disorganizations of the fauces and œsophagus.

“ PLATE XIII.

“ Sketches of chronic inflammation of the fauces, enlarged, indurated, and ulcerated tonsils.

SYMP. Tickling in the throat, attended with great heat and a peppery taste in the mouth, cough, expectoration of mucus, sometimes blood; the tonsils are enlarged, and of a dark red colour. The uvula is soft and papulous, as if composed of a clot of blood. The capillary veins are distended, and the soft vascular network spread over the palate gives it the appearance of a well injected tissue of blood vessels.

MORBID ANAT. *Cynanche Maligna*—The fauces are inflamed, suppurated, and gangrenous; and the trachea and larynx are likewise in a state of inflammation, and lined with a viscid fetid matter.

PLATES XIV. XV.

These plates represent acute and chronic inflammation of the œsophagus and its effects.

SYMP. *Inflammation of the Œsophagus*—Burning sensation on taking food, pain in the neck, particularly so in the side, which is increased on pressure, dryness of the fauces, regurgitation of the food through the nostrils.

Ulceration—An uneasy sensation in some part of the œsophagus, which is aggravated after eating, or after drinking ardent spirits; a lancinating or burning sensation in one or more parts of the tube; slight cough, cardialgia, repeated efforts to clear the throat of a tough dirty-coloured matter.

SYMP.—*Stricture of the Œsophagus*—Dyspnœa, difficulty in swallowing, nausea, vomiting, eructation, sense of hunger, bowels constipated, dejected and pallid countenance, cramp and spasms, both at the seat of stricture and in the stomach.

MORBID ANAT. The mucous membrane is generally found pulpy and red, and its capillary vessels are very distinctly seen loaded with blood; sometimes it is lined with a false membrane. Ulcers of the œsophagus are generally surrounded with indurated and everted edges; the erosion sometimes is very deep, sometimes superficial.” 14.

We have only space for one other quotation.

SYMP.—*Acute Muco-Enteritis*—Compressed state of the abdomen, pain in the region of the navel; nausea, vomiting, slight tormina; jelly-like

evacuations ; tongue covered with a whitish fur, red tip and edges ; pulse soft and compressible.

Chronic, with Ulceration—Cough ; rigors with alternate flushes of heat ; jelly evacuations, mixed with pus or blood ; tongue covered with a dirty yellowish fur, red tip and edges, pulse soft and compressible, pain on pressure just above the pubis ; belly becomes flatter, the face more sunk, and the cheeks and eyes more hollow.

Mucous Memb. of the large Intestines—Tormina, tenesmus ; scanty evacuations of feculent matter, blended at times with mucus, pus, or blood ; pulse quick and full, tongue white, with slight red tip and edges.

Stricture of the Gut—Pain and sense of weight in the loins, which sometimes extends to the rectum and thighs ; obstruction to free evacuation, with a thready and compressed appearance of the feculent matter ; pallid countenance ; if of long standing, great emaciation.

Cancer of the Rectum—Severe pain, darting through the pelvis to the bladder and the groin. The countenance is of a sallow leaden colour.

MORBID ANAT. The parts are redder than usual, and the vessels are seen to course in an arborescent manner ; there is an œdematous and puffy state of the part, which is produced by an infiltration of fluid into the cellular connecting membrane. Lymph is sometimes found adhering to its surface. The redness in acute inflammation has no line of demarcation, but vanishes gradually from a dark red to a faint flesh colour.

Chronic—The mucous tissue is thickened, attenuated, softened, indurated, or ulcerated ; and the colour of the parts varies considerably, being at times blue, red, green, yellow, white, or black.

Encephaloid tumours differ in their structure from fungus hæmatodes, and likewise in their manner of destroying parts. These tumours are found to be of a medullary consistency, and protected by one or more tunics, according to the part affected. The capsules are bountifully supplied with arteries and nerves, and the venous capillary vessels are seen to form complete masses of vessels on their external surface. Some of the vessels enter into the substance of the tumour. Sometimes the medullary matter occupies one cell only ; sometimes six or eight, so as to form one tumour, hence the lobulated appearance.

The intervening cellular tissue is matted together by chronic inflammation, so as not to be separated without the greatest difficulty. In the substance of these tumours there is most commonly found a small quantity of blood.

Fungus Hæmatodes—has no proper capsule, and possesses the peculiar power of changing every portion of the human frame to its own nature ; and this occurs without that thickening or hardening of the cellular tissue which generally accompanies chronic inflammation.

In ulceration, the capillary vessels of the venous system form a perfect net-work ; and these minute vessels press into larger branches of the venous system : it is to the varicose and partial lesion of these vessels, that the edges and inferior surface of the ulceration owe their dark

ruby colour. If the ulceration be extensive, the destruction of veins is very great, and hæmorrhage is the consequence." 40.

The foregoing specimens of the *Vade Mecum* will show pretty fairly its style and character. The plates are rather too small to convey very accurate perceptions to those who are not frequently in the habit of studying from nature; and the detail of symptoms is too brief to afford very substantial information. Yet it would have been difficult to have avoided these errors, without, at the same time, falling into others of an opposite description. On the whole, we are disposed to speak favourably of the volume, and to recommend it to our junior brethren.

XI.

PATHOLOGICAL AND PRACTICAL RESEARCHES ON UTERINE INFLAMMATION IN PUERPERAL WOMEN. By *Robert Lee*, M.D. F.R.S.
Physician to the British Lying-in Hospital, &c. &c. &c.

[*Med. Chir. Transactions*, Vol. XVI.]

IN the 12th volume (No. XXIV.) of this Journal, page 376—384, we gave an ample analysis of Dr. Lee's paper on Uterine Phlebitis and Phlegmatia Dolens, published in the 15th volume of the *Medico-Chirurgical Transactions*. The present paper, occupying upwards of 80 pages of the volume in question, deserves undivided attention from the profession, as the result of great and unwearied labour, indefatigable zeal, and talent of a high order. Indeed we cannot help taking this opportunity of awarding our meed of praise to the merits of a young physician, who, if we are not much mistaken, will, ere long, make a distinguished figure in his profession. We do not know, at this moment, a man who better deserves reputation with its accompaniments, than the author of the paper now before us, and we have no doubt that the institution to which he belongs, and the school where he teaches, will give him ample scope for the exertion of those abilities, and the dissemination of that pathological and practical knowledge which he has so zealously and so early acquired. But we must now proceed to an analysis of this important paper.

The febrile and inflammatory diseases of parturient women were long thought to depend on inflammation of the uterus, excited by suppression of the lochial discharge, or on some diseased condition of the animal fluids resulting from pregnancy. In modern times, the greatest diversity of opinion has prevailed respecting the nature and

treatment of these acute disorders, some referring them wholly to peritoneal inflammation, while others, overlooking the local affections of the uterine organs, have described them as specific diseases, under the terms puerperal, peritoneal, or child-bed fever.

In the last paper which our author published on Uterine Phlebitis, he ventured to infer that inflammation of the uterine veins is of far more frequent occurrence than has yet been suspected, and that to it must be referred many of those fatal puerperal disorders which have usually been comprehended under the vague designation of puerperal fever or peritonitis.

"At that period I had also arrived at the following conclusion, which subsequent experience has fully confirmed, 'that inflammation of the uterus and its appendages must be considered as essentially the cause of all the destructive febrile affections which follow parturition, and that the various forms they assume, inflammatory, congestive, or typhoid, will, in a great measure, be found to depend on the serous, muscular, or venous tissue of the organ having become affected.'*

From the 1st of January 1827, to the 1st of March 1831, including a period of more than four years, one hundred and twelve cases of well-marked uterine inflammation, have come under my observation in the British Lying-in Hospital, and in public and private practice in the western districts of this metropolis. I have watched the symptoms and progress of these cases with the closest attention, observed the effects of remedies, and where death has taken place, I have carefully examined the alterations of structure, which have remained in the uterine and other organs.

Of forty cases which have proved fatal, the bodies of thirty-four have been examined, and in all of these, which had presented during life, the characteristic symptoms of what has been usually denominated Puerperal Fever, there existed some morbid change from inflammation either in the peritoneal coat of the uterus, or of the uterine appendages, in the muscular tissue, the veins or absorbents of the uterus, to account in a complete and most satisfactory manner for all the constitutional disturbance which has been observed. The peritoneum and uterine appendages were found inflamed in twenty-six cases, in fourteen there existed uterine phlebitis, in eight, inflammation and softening of the muscular tissue of the organ, and in four, the absorbents were distended with pus. The results of these observations, as far as they go, are therefore decidedly opposed to the opinion now generally prevalent in this country, that there is a specific fever, which attacks puerperal women, and which may arise independent of any local affection in the uterine organs, and prove fatal frequently, without leaving any perceptible change in the organization of their different textures." 380.

In the present communication Dr. Lee proposes succinctly to describe the various changes produced by inflammation in the uterine organs subsequent to parturition—to point out the local and constitutional symptoms by which these morbid conditions are characterized during life, and to which combination of symptoms the terms puerperal, peritoneal, or child-bed fever, have been applied by different authors—

* Med. Chir. Transactions, Vol. XV. p. 465.

and lastly, to describe the treatment which experience has led him to consider as the most safe and efficacious.

"The following are the principal modifications of inflammation of the uterus in puerperal women which I have observed.

1st. Inflammation of the peritoneal covering of the uterus, and of the general peritoneal sac.

2ndly. Inflammation of the uterine appendages; ovaria, Fallopian tubes, and broad ligaments.

3dly. Inflammation of the muscular or proper tissue of the uterus.

4thly. Inflammation and suppuration of the veins, and absorbent vessels of these organs.

These varieties of uterine inflammation may occur wholly independent of each other, though they are most frequently met with in combination. Peritonitis seldom occurs, without some degree of inflammation of the uterine appendages, but both these textures I have found severely affected, when the muscular coat of the uterus and the veins have been wholly exempt from disease. The venous and muscular tissues of the uterus are also liable to severe attacks of inflammation, without any corresponding affection of the peritoneum, by which they are covered, though it most frequently happens that inflammation when set up, either in the veins or muscular coat, involves also the peritoneum. In the organs of respiration similar varieties of inflammation may be observed, and the pleura, pulmonary texture, and the mucous membrane lining the air passages, may all be separately or simultaneously involved in the same attack. A similar observation may be extended to the brain and its membranes, and to the whole of the digestive organs, and the symptoms which characterize the inflammation of the different tissues, of which these organs are composed, have been as accurately determined, as they possibly can be, in the present state of pathological science."

I. INFLAMMATION OF THE PERITONEAL COVERING OF THE UTERUS, AND OF THE GENERAL PERITONEAL SAC.

The effects produced by inflammation of the uterine peritoneal coat, in puerperal women, do not differ essentially from those produced by ordinary peritonitis in the male sex. Where inflamed, the membrane becomes vascular, red, apparently thickened, while a secretion or substance of a yellow colour, in the form of a false membrane, is thrown out, producing adhesion of the abdominal viscera to each other. Or a morbid serum, mixed with shreds of albumen or pus, is effused, more or less, into the cavity of the peritoneum.

"Puerperal peritonitis usually commences in the peritoneum of the uterus, and extends from thence with greater or less rapidity, according to the severity of the attack, to the general peritoneal membrane. In some cases, the inflammation is confined to the uterus, and it is generally most severe in this organ, or in the parts immediately contiguous. Even when it has extended to the other viscera, and affected them most severely, the peritoneum of the uterus invariably exhibits signs of recent inflammation. The lymph is for the most part thrown out in thicker masses around the uterus, than in any other situation, and this viscus has seemed to suffer in the greatest degree from the violence of the inflammation.

Sometimes considerable depositions of pus are formed in the cellular membrane, beneath the peritoneal coat of the uterus, which are either prominent and circumscribed,

or the cellular membrane becomes infiltrated with pus. This latter appearance I have most frequently met with, at the part where the peritoneum is reflected from the uterus and vagina to the rectum.

Inflammation of the peritoneal coat of the uterus is characterized by great tenderness of the surface of the organ, increased on pressure, and by pyrexia more or less severe. In every instance on a careful examination of the uterine region, there has been more or less pain in it increased by pressure, with constitutional disturbance, though it must be admitted that the pain and febrile symptoms have varied greatly in intensity.

When the attack of peritonitis is severe, the patient generally lies upon the back, with the knees drawn up to the trunk of the body. At the onset of the disease, the abdomen is generally soft, and flaccid, and, except in the region of the uterus, not affected by pressure. Dr. Hulme has described the pain as affecting the whole hypogastric region from the commencement of the attack, but this is the case only where the disease has made considerable progress, or has extended from the uterus to the general investing membrane of the abdomen. Though an enlarged and painful state of the uterus be never altogether wanting, yet the pain often undergoes exacerbations, similar to after-pains, and is often mistaken for them by careless observers, and the disease is thus overlooked, till a great part of the peritoneal sac is inflamed, and the case in consequence is rendered hopeless.

The whole abdomen at length becomes distended, tympanitic, and occasionally exquisitely painful on pressure. Vomiting of dark green coloured fluid substances follow. The pulse grows rapid and feeble. The tongue dry and brown, the lips and teeth covered with dark sordes, diarrhœa frequently supervenes, and death follows at no very remote period.

The invasion of pain in the uterus, is sometimes sudden, at other times the ordinary increased sensibility of the uterus, subsequent to the efforts of natural labour, or after-pains, passes slowly and insensibly into the acute pain increased by pressure, which is the great characteristic symptom of uterine inflammation. Most frequently the accession of the disease is marked by rigors, partial or general, sometimes so slight as scarcely to be perceived by the patient, at other times so violent as to produce strong succussions of the whole body. The cold shivering after a longer or shorter duration passes away, and is succeeded by great heat of the surface, acceleration of the pulse and of the respiration, thirst, sometimes nausea, and vomiting, and intense pain across the forehead. The rigors precede, accompany or follow the increased sensibility of the uterus. In some of the most severe cases, there has been no distinct rigor, but a quick pulse, hot skin, and hurried respiration, have rapidly succeeded to the uterine pain. In some of the most unfavourable cases, the extremitities have been cold, and the countenance anxious and pallid, after the disease has been completely formed.

There is no uniformity in the state of the tongue in puerperal peritonitis. It is sometimes covered with a thin, moist, white, or cream-like film, at other times it is red in the centre, with a thick, yellow, or white fur on the edges.

The lochia are often completely suppressed, in other cases only diminished in quantity. The mammæ usually become flaccid, yet in some fatal cases, the milk has been secreted till a short period before death." 385.

Puerperal peritonitis may be confounded with those irregular contractions of the uterus which constitute after-pains and hysteralgia; and it must be admitted that, in some cases, it is difficult to draw a line of distinction between them. Where the pulse is accelerated the remissions of pain incomplete, the lochia scanty or suppressed,

in a large proportion of cases, we shall be safe in considering the peritoneal coat of the uterus, or even more deep-seated tissues, as involved in a state of inflammation or congestion, and requiring antiphlogistic treatment. Dr. Lee thinks there are few puerperal women, unless they are of a very feeble and irritable constitution, who can be hurt by cautious depletion under the above circumstances.

"Intestinal irritation, depending on a disordered state of the bowels is also liable to be mistaken for peritonitis, and treated by blood-letting, to the injury of the patient. In this affection the abdominal pain is diffused, it is rather a griping than acute pain; it does not commence in the region of the uterus, nor is it aggravated by pressure. The abdomen is generally soft, puffy and distended. The tongue is loaded. There is thirst and head-ach, the lochia and milk are not suppressed, the febrile attack is usually preceded by evident signs of great intestinal derangement, flatulence, nausea, vomiting, constipation or diarrhœa. The constitutional disturbance attending intestinal irritation comes on about the end of the first week, whereas peritonitis manifests itself most frequently before the fourth day subsequent to delivery. The re-action which succeeds to uterine hæmorrhage cannot easily be confounded with puerperal peritonitis. The morbid sensibility of the uterus which characterizes inflammation, and the other symptoms already described, are here entirely wanting." 387.

II. INFLAMMATION OF THE UTERINE APPENDAGES.

In only one case has our author found the uterine appendages free from disease, where the peritoneal covering of the uterus had been inflamed. On the other hand, the appendages of the uterus have been found extensively disorganized, where the peritoneal coverings have been found very slightly affected.

"The surface of the broad ligaments, ovaria, and Fallopian tubes, have been red and vascular, and partially or completely imbedded in lymph or pus. The loose extremities of the Fallopian tubes have been of a deep red colour and softened, and deposits of pus, in a diffused or circumscribed form, have taken place in their cavities or in their sub-peritoneal tissues. Between the folds of the broad ligaments, effusions of serous or purulent fluids have also been found.

Numerous important changes have likewise been observed in the structure of the ovaria. Their peritoneal surface has often been found red, vascular, and imbedded in lymph, without any visible alteration of their parenchymatous structure, or their whole volume has been greatly enlarged, swollen, red and pulpy; blood has been effused into the vesicles of De Graaf, or around them, and circumscribed deposits of pus have been found dispersed throughout the substance of the enlarged ovaria. In several cases, the entire structure of the ovaria has been reduced to a broken-down vascular pulp, no traces of their natural organization being left. These are accurately represented in the drawings now exhibited.

The ovarium appeared, in one instance which I observed, to be converted into a large purulent cyst, which had contracted adhesions with the abdominal parietes, and discharged its contents exteriorly through an ulcerated opening. In another case which proved fatal, the inflamed uterine appendages, agglutinated together by lymph, had contracted adhesions with the peritoneum at the brim of the pelvis, the inflammation had extended to the cellular membrane, exterior to the peritoneum, and had given rise to an extensive purulent deposit in the course of the psoas and iliacus internus muscles, as in lumbar abscess.

In two other individuals, who ultimately recovered, the purulent matter formed in the situation of the psoas and iliacus internus muscles, from inflammation of the uterine appendages, made its way through an opening at the upper part of the thigh. Contraction of the thigh on the trunk took place in both these cases, and continued for several months, but disappeared when complete recovery took place. The uterus remains immovably fixed to the right side of the pelvis, in a woman who, six months ago, had a severe attack of inflammation of the peritoneum, and uterine appendages of the same side, a few days after delivery." 389.

It is often difficult to form a diagnosis between inflammation of the uterine appendages and peritonitis, because, in fact, they are generally combined together. The pain, it may be said, is less acute than in peritonitis, and it is chiefly seated in one or other of the iliac fossæ, extending thence to the loins, anus, and thighs. On pressure, the morbid sensibility will be found chiefly to exist in the lateral parts of the hypogastrium. The constitutional symptoms, at the onset of the attack, do not differ materially from those which mark the accession of peritonitis, being often accompanied with strong febrile re-action, which passes speedily away, and is succeeded by prostration of strength, and the other appearances which characterize inflammation of the muscular and venous tissues of the uterus. The following cases have been selected to illustrate the morbid changes above described, as appertaining to inflammation of the peritoneal coat of the uterus and its appendages.

Case 1. Mrs. Groom, æt. 28, No. 13, Little Coram Street, was delivered of her first child on the 6th March, 1827. On the 8th, great tenderness of the uterine region took place, with suppression of the lochia, and febrile symptoms, which, being supposed by her medical attendant to depend on spasmodic contractions of the uterus, were treated with anodynes and warm fomentations of the hypogastrium.

On the 10th, (the fourth day after her confinement, and the first on which I saw her,) the abdomen was tympanitic and exquisitely painful on pressure. The pulse 140 and feeble, the extremities cold, countenance haggard. There was incessant vomiting of a dark green fluid, with diarrhœa, and she died in the afternoon.

Dissection.—The stomach and small intestines were inflated with gas. The peritoneum, covering the fundus and posterior part of the uterus, was of a bright red colour, and the cellular membrane underneath it, in this latter situation, was infiltrated with pus. The peritoneal coat of the small intestines was highly vascular, in different parts, and the surface of the liver was partially covered with lymph. The uterine appendages on both sides were covered with pus and lymph, and the lumbar regions contained about a pint of wheyish-coloured turbid fluid. The consistence of the spleen was remarkably soft.

Case 2. Elizabeth Marshall, æt. 23, No. 3, Crown Place, Soho. Was attacked on the 4th of March, 1827, (the 3d day after her delivery,) with rigors, head-ach, vertigo, and sense of exquisite tenderness in the hypogastrium and right groin. The milk and lochia soon disappeared, blood-letting was employed on the 8th, and leeches were applied to the region of the uterus, but tenderness gradually extended over the whole abdomen, which became as large as before delivery, and tympanitic. The pulse was rapid and

intermitting. The tongue covered with a brown fur, singultus and vomiting of dark-coloured matter succeeded, and she died on the 12th day after the attack.

Dissection.—The uterus with its appendages, and the small intestines, were all imbedded in thick masses of lymph, and closely adhered to one another. The omentum, colon, and peritoneum lining the abdominal muscles were vascular, of a deep red colour, and partially coated with false membranes. About 3x. of sero-purulent fluid were contained in the cavity of the abdomen. The deeper seated tissues of the uterus were healthy.

Case 3. Mrs. Laurens, æt. 42, at No. 5, Cumberland-street, Middlesex Hospital.

After a severe and protracted labour, was delivered of a still-born hydrocephalic child, on the 12th of February, 1828. On the 14th, there was a severe rigor, the lochial discharge was suppressed, and the uterus was felt above the brim of the pelvis, large, hard, and exquisitely painful on pressure. The pulse 120, with great prostration of strength.

On the 15th, the pulse was more rapid and feeble, the abdomen tumid, and every where highly sensible. Vomiting of green-coloured matter took place, and she died about 60 hours from the period of delivery.

Dissection.—The uterus uncontracted occupied the whole brim of the pelvis; its peritoneal coat, and that of the small intestines and liver was partially covered with thin false membranes, and two pounds of a brownish-coloured fluid, with flakes of albumen and pus, were contained in the peritoneal sac. A fibro-cartilaginous tumour, of considerable size, was found imbedded in the muscular coat of the uterus. The uterine appendages on the right side were red and vascular, and the ovary was unusually soft, and about three times the natural size.

Case 4. Mrs. Tiffin, æt. 32, No. 18, Mercer-street, Long-acre.

Delivered on the 7th July, 1829. Labour natural. On the 9th, the uterus was felt above the brim of the pelvis, large and hard, and it was very painful on the slightest pressure; lochia and milk suppressed; pulse 110, and feeble; tongue white; bowels open. Slight relief followed the abstraction of fifteen ounces of blood from the arm, and the application of leeches to the hypogastrium.

10th July. The whole hypogastrium is now exquisitely painful, and the abdomen is swollen. Pulse more frequent. There has been much nausea and vomiting during the night. Bowels open. F. V. S. ad 3xxiv. Eighteen leeches to the region of the uterus.

11th. Vomiting continues, abdomen less swollen, and pressure over the region of the uterus produces little uneasiness. Pulse rapid and feeble, respiration hurried, countenance sunk, occasional delirium. The whole surface of the body is now of a deep yellow colour.

She became gradually more feeble, and died in the evening.

Dissection.—Present, Drs. Sims, Clark, and Williams. The abdomen was distended by a great accumulation of air within the bowels, the peritoneal coat of the small intestines was red and vascular; the peritoneum of the fundus and anterior portion of the body of the uterus was coated with albumen, and the sub-peritoneal tissue, in this situation, contained a sero-purulent and gelatinous fluid. From the incisions made into the lower part of the body of the uterus, there escaped pure pus, but whether this flowed from the vessels or muscular tissues it was not easy to ascertain. Between the folds of the broad ligaments, there was a deposition of a gelatinous and purulent fluid, and both Fallopian tubes were of a deep red colour, softened, and their coats filled with pus. The right ovary was of the size of a common hen's egg, of a pulpy gelatinous consistence, and its healthy organization entirely destroyed. The whole presented the appearance of a soft, fibrous, vascular pulp; the left ovary was similarly affected.

Case 5. Mary Ann Hale, æt. 26, was delivered in the British Lying-in Hospital, on the 24th July, 1829. On the 26th she had a severe rigor, which was speedily followed by pain in the region of the uterus and febrile symptoms: 18 ounces of blood were drawn from the arm, which produced but little relief: leeches and other antiphlogistic remedies were employed: the whole abdomen, however, soon became exquisitely tender, without swelling or tension, and death took place on the 29th, the fifth day after delivery. Cough, dyspœa, and pain in the right side of the chest, were experienced during the last two days of her life.

Dissection.—The peritoneal coat of the uterus, and the uterine appendages, were coated with false membrane; that covering the small intestines exhibited the usual effects of intense inflammation. Several folds of the ilium were glued together by lymph. The surface of the liver was also coated with albumen, and about two pounds of a whey-coloured fluid were contained in the abdominal cavity. The muscular coat and vessels of the uterus were in a healthy condition. In the left side of the thorax there were traces of recent inflammation in the pleura and substance of the lungs." 396.

Four other cases are related by Dr. Lee, but we conceive the five foregoing instances are quite sufficient for our purpose in this place. We shall, therefore, proceed to the third division of the subject.

III. INFLAMMATION AND SOFTENING OF THE MUSCULAR TISSUE OF THE UTERUS.

The dark-coloured layer, says our author, which usually coats the inner surface of the uterus, after delivery, has been supposed to be the result of gangrenous inflammation, and has been described as such, by some pathologists. This ought not, however, to be confounded with the changes produced by inflammation of the inner membrane of the uterus, when it becomes softened or wholly disorganized like the mucous membrane of the stomach and intestines in certain inflammatory affections.

"Inflammation and softening of the uterus have in some cases affected the muscular tissue of the fundus, body, and cervix of the uterus; in others these changes have been limited to the part where the placenta has adhered, which has become unusually thin and reduced to a pulpy state.

Small abscesses have been formed in a few instances in the proper tissue of the uterus, without any perceptible change in the surrounding substance of the organ, while in other cases all appearance of muscular fibre has been lost.

In the works of the different authors on puerperal fever published in this country, the rapid and destructive variety of uterine inflammation now described has scarcely been noticed, though it has been pointed out by several German and French pathologists. Astruc, Vigarous, and Primrose state, that the uterus is liable to be attacked with gangrene and sphacelus; and other authors have recorded cases where gangrene of the uterus followed acute inflammation of the organ. Professor Boër, of Vienna, has described this affection under the term *Putrescence of the Uterus*, and has observed its frequent oc-

currence in particular epidemics.* Luroth,† and Danyau,‡ have more recently published extended accounts of this malignant affection, which occurs soon after delivery, and often runs its course with great rapidity. Among the 222 fatal cases of puerperal fever observed by M. Tonnellè in the Maternité of Paris in the year 1829, there were forty-nine in which the muscular tissue of the uterus was found softened. M. Tonnellè states, that softening of the uterus, after shewing itself frequently in the first half of the year 1829, and particularly about January, disappeared entirely in the months of July and August, which were characterized in a remarkable manner by the frequency of uterine phlebitis. Afterwards it began to rage anew with great violence in September and October, and disappeared again in the last two months, during which time the mortality was inconsiderable.

Considerable obscurity, as has been well observed, exists, respecting the ordinary effects of inflammation of the muscular fibres of the body, but one point may be considered as known and established, viz. that a result of inflammation in this tissue of the body is softening and gangrene.§ That the destruction of the healthy organization of the proper tissue of the uterus, in puerperal women, is the consequence of an inflammatory process, may be inferred from symptoms which accompany the disease, and from its occurring in combination with the other varieties of uterine inflammation.

Inflammation of the muscular coat of the uterus, most frequently commences with pain of the hypogastrium, irregularity of the lochial discharge, and rigors, succeeded by the other symptoms of pyrexia. The countenance becomes pallid, and is usually expressive of great anxiety and distress. There is often severe head-ach with delirium and other affections of the brain and nervous system, and so violent have these been in some cases, that the local affection of the uterus has completely escaped detection during life. The skin is hot and dry, and sometimes of a peculiar sallow tinge, the pulse is rapid and feeble. The respiration hurried, with remarkable prostration of strength. The tongue soon becomes foul. The lips covered with sordes: occasional vomiting is experienced. The progress of the disease in some cases is rapid, in others it runs its course more slowly, being protracted to the eighth or tenth day." 405.

The diagnosis between this variety of uterine inflammation and peritonitis or phlebitis, with which it is often combined, is acknowledged to be very difficult, or even impossible. In all the cases of this affection which our author has seen, the resources of Nature and Art have proved of no avail. The active inflammatory symptoms which commonly manifest themselves at the commencement of the attack, pass speedily away, whatever plan of treatment be adopted, and are rapidly succeeded by symptoms of exhaustion. When the disease is not complicated with peritonitis, the symptoms are not so urgent as to indicate venesection—and in one case where it was adopted freely, the abstraction of blood was followed by speedy death. In other cases, and where opposite plans were followed, the fatal result was not less certain, though somewhat more slow. The three following cases are adduced as illustrations of the disease in question.

* "Naturalis Medicin. Obstetric Libri VII. Viennæ, 1812."

† "Mémoire sur le Ramollissement. Par G. S. Luroth. Repertoire Generale d'Anatomie Pathologique. 1828."

‡ "Essai sur le Metrite Gangreneuse. Par A. C. Danyau. Paris, 1829."

§ "Pathological and Practical Researches on Diseases of the Stomach. By J. Abercrombie, M. D. Edin. 1828."

Case 1. "Mrs. D—, Orange Street, Leicester Square, after a severe and protracted labour was delivered of a still-born child, on the 25th of March, 1829. On the 27th, there was exquisite tenderness of the hypogastrium increased by pressure, with fulness and tension of the whole abdomen. The pulse was rapid and feeble. The lochia and milk suppressed. The tongue was dry and furred. Thirst urgent, with constant nausea. Leeches and warm cataplasms were applied to the region of the uterus, and calomel and opium administered every second hour. The pain gradually extended to the whole abdomen, which was enormously distended. The pulse became still more rapid and feeble. The tongue brown; teeth covered with dark sordes. Incessant vomiting of dark coloured matters, with low muttering delirium, followed, and she sunk on the 4th of April.

Dissection. The peritoneal surface of the great intestines was remarkably vascular, but no false membrane was observed on any of the abdominal viscera. Several pints of a brown serous fluid were contained in the peritoneal sac; the uterus was large and uncontracted, and its peritoneal coat at the inferior and posterior part was deeply red; its muscular tissue to a considerable extent in this situation, was of a dark ash-grey colour, and so soft as to be lacerated by slight pressure of the fingers. The os uteri at the posterior part was softened and wholly disorganized.

Case 2. On the 7th of September, 1829, I was present at the examination of the body of a lady who had died on the 9th day after delivery, with the ordinary symptoms of low child-bed fever.* Little complaint had been made of pain in the region of the uterus. The pulse was rapid and feeble, the respiration hurried, the tongue loaded, with diarrhœa. Before death the whole surface of the body had assumed a deep yellow colour.

Dissection.—The uterus occupied the brim of the pelvis. The whole peritoneal sac had a healthy appearance, except a small portion covering the posterior part of the body of the uterus, which was red and vascular, but not covered with false membrane. On cutting into the cavity of the uterus, there escaped a dark coloured offensive fluid. The muscular coat under the inflamed peritoneum, where the placenta had adhered, was converted into a soft flocculent substance, readily broken down with the fingers, and this morbid alteration extended near to the peritoneum. Around this disorganized portion of the muscular and internal coats of the uterus, similar changes, though slighter in degree, were observed in these tissues to a considerable distance and they had a dark livid colour. The uterine appendages on the right side were also disorganized by inflammation.

Case 3. Mrs. Chapman, æt. 36, No. 9, Belton-Street, Long Acre. Delivered on the 19th of August, 1830, labour easy. On the 24th, after drinking freely of porter, was suddenly attacked with a violent rigor, of long continuance, which was succeeded by acute uterine pain, headach, and great frequency of pulse. No remedies of any kind were employed until the 27th, when I was first called to see her. She had been delirious in the night. The pulse 130, soft and compressible; hurried breathing, great prostration of strength. Tongue brown and furred, diarrhœa, surface of the body of a deep sallow colour. The hypogastrium was painful on pressure, the abdomen generally neither swollen nor tender.

The symptoms became aggravated in the night, and she died on the morning of the 28th.

* "My friend and colleague, Dr. Henry Davies, was consulted in this case, and it was to his kindness that I enjoyed the opportunity of witnessing this dissection, and of examining the bodies of several other women who had died in the hospital."

Dissection.—Dr. Sims and Mr. Rice were present. No trace of disease could be detected in the peritoneal coat of the uterus, intestines, or other abdominal viscera, and no effusion of fluid had taken place into the peritoneal cavity.

Both ovaria were enlarged and disorganized, being so softened in consistence as to resemble a rotten pear. Both Fallopian tubes were of a deep red colour, and their cavities were filled with a thin purulent fluid. These morbid appearances were most remarkable in the right uterine appendages. The muscular coat of the greater portion of the body and fundus of the uterus, at the posterior part, was of a peculiar yellow colour, and so soft, that the point of the fore-finger passed through it and the peritoneum covering it, though the parts were dissected out in the gentlest manner. On a careful examination of the uterus, it was found that the whole of the uterine parietes at the posterior part had undergone this morbid change of structure."

IV. The next subject which our author investigates is **INFLAMMATION OF THE VEINS AND ABSORBENTS OF THE UTERUS**. A case was observed by Mr. Cæsar Hawkins, at St. George's Hospital, where the absorbent vessels of the uterus, and the receptaculum chyli were filled with pus, in a case of fatal uterine inflammation after delivery. Since that period, our author has observed the absorbents in the vicinity of the uterus distended with pus in four cases; and in three of these there existed inflammation and suppuration of the veins. The late valuable researches of Tonellé and Duplay have proved that inflammation of the uterine absorbents, of the receptaculum chyli and thoracic ducts, occurs not unfrequently in puerperal women, and gives rise to the same constitutional disturbance as uterine phlebitis. The presence of purulent fluid in the veins of the uterus after parturition was pointed out many years ago by Meckel, Wilson, Clarke, and others; but none of these authors appear to have been aware of the important fact, recently demonstrated, that a large proportion of what are termed low child-bed fevers, arise from inflammation and suppuration of the uterine veins. Exclusive of the cases published in the 15th volume of *Med. and Chir. Transactions*, ten fatal examples of this insidious and most dangerous affection have fallen under his notice since November 1829; and, from an examination of all these cases, it appears to him, that "the symptoms of uterine phlebitis correspond, in a striking manner, with the symptoms assigned by the earlier writers to the putrid puerperal fever, or malignant forms of typhus after delivery."

M. Tonellé, in his memoir, has stated that, in 1829, during the prevalence of the fatal epidemic in the *Maternité*, inflammation of the veins and lymphatics of the uterus occurred in 132 out of 222 cases which were examined after death; and that, in 197 cases of the whole, some important alteration of structure was discovered in the uterine organs. M. Duplay has confirmed these observations to the fullest extent; for he met with eighteen cases of inflamed lymphatics, with or without phlebitis. In all of these the constitutional phenomena were

those which characterise inflammation of veins in other parts of the body, and in the other sex.

"In women who have enjoyed good health during pregnancy, and in whom the process of parturition has been easily accomplished, uterine phlebitis occasionally commences within twenty-four hours after delivery, with pain more or less acute in the region of the uterus, accompanied or followed by a severe rigor, or a succession of rigors, suppression of the lochial discharge, acceleration of the pulse, cephalalgia or slight incoherence of ideas, with an insuperable sensation of general uneasiness, and sometimes by nausea and vomiting. These symptoms after a short duration are succeeded by increased heat of the body, tremors of the face and limbs, rapid feeble pulse, anxious and hurried respiration, great thirst, with brown dry tongue, and frequent vomiting of green-coloured matters. The sensorial functions usually become much affected, and there is a state of drowsy stupor or violent delirium and agitation, which terminate in exhaustion. The whole surface of the body not unfrequently assumes a peculiar sallow or deep yellow colour, the abdomen becomes swollen and tympanitic, and some of the remote organs of the body, the brain, heart, lungs, liver, and spleen, or the articulations and cellular membrane of the extremities suffer disorganization, from a rapid and destructive congestion, inflammation, or gangrene.

At other times, inflammation of the uterine veins commences at a later period after delivery than above-mentioned, and in a much more obscure and insidious form, without either pain or sense of uneasiness in the region of the uterus, or any other local symptom by which the affection can be recognized. The uterus may return to its usual reduced volume after delivery, the lochial discharge may continue to flow, and the inflammation and suppuration of the veins, which have caused the whole of the violent constitutional disturbance and destructive lesions in distant parts of the body, may be wholly overlooked during life. In several cases which I shall now relate, this occurred, and wine, opium, brandy, and sulphate of quinine, with other stimulants, were liberally administered by the medical attendants, to obviate the debility supposed to be caused by a specific fever, without any local affection of the uterine organs.

Phlebitis rarely takes place in any part of the body where it cannot be referred to a wound, or to some specific cause externally applied. In uterine phlebitis the inflammation cannot, it is true, be traced invariably to the orifices of the veins where the placenta adhered to the inner surface of the uterus; "yet it scarcely admits of a doubt, (says Dr. Lee,) that the frequent occurrence of the disease is the effect of the communication indirectly established between the venous system and the atmospheric air after the separation of the placenta." In consequence of this separation, Dr. Lee conceives that the uterine veins are placed in a condition analagous to that of the great veins of the extremities after amputation and extensive wounds, which condition, experience has proved to be favourable to the production of inflammation. Inflammation once excited in these vessels may extend along the contiguous membrane of the uterine veins to the spermatic or hypogastric veins, and thence to the vena cava and its principal branches, returning the blood from the lower extremities.

Though uterine phlebitis is a most dangerous affection, it does not always prove fatal. It often happens, Dr. Lee thinks, in puerperal

women, without being suspected. We are now prepared for the detail of some cases of—

UTERINE PHLEBITIS.

Case 1. "Mrs. Hickson, a middle aged woman, delivered in the British Lying-in Hospital, on the 14th of November, 1829. On the 3d of December, the day before her death, I first saw her. The hypogastrium was swollen and tense, and on the right side exquisitely painful on pressure. The pulse was 130 and feeble; respiration hurried. The countenance sunk; great prostration of strength. The tongue covered with a dark brown fur; nausea, and urgent thirst. The conjunctiva of both eyes, and the whole surface of the body of a deep yellow tinge. The milk, which was sparingly secreted, was observed to be of the same colour. I was informed that this patient had a very good labour, but that retention of urine took place a few days after she had complained of some pain in the right side, which was relieved by leeches. She afterwards went on tolerably well, and was up and about till the middle of the third week. She took porter and animal food eagerly till within two days of her death.

The body was removed from the Hospital to Little Brook-street, Hanover-square, where it was examined on the 8th of December.

The peritoneal surface of the abdominal viscera appeared at first sight in a healthy state, and the uterus had undergone the usual reduction of volume, at the same period after delivery. The uterine appendages on the right side were found adhering to the caput coli and to the peritoneum near the brim of the pelvis, by a firm false membrane. The veins proceeding from the right side of the fundus uteri to the spermatic were filled with pus, and the coats of the right spermatic veins, to an extent of three inches from the uterus were greatly thickened, and the cavity obstructed with lymph and pus. The veins in the left superior angle of the uterus also contained pus, and two small purulent deposits were found immediately under the peritoneum in the same situation.

Upwards of a pint of pure pus was contained in the cellular membrane at the brim of the pelvis on the right side, and had passed down into the cavity exterior to the peritoneum, as low as the neck of the bladder. The mucous membrane of the bladder near its cervix was intensely red, and partially coated with a thin false membrane of an ash-grey colour.

Case 2. Mrs. Messlin, æt. 22, a patient of the British Lying-in Hospital, delivered on the 13th of January, 1830, after a natural labour. During the whole of the following day she complained of an unusual sense of chilliness, with vertigo and slight head-ach.

15th Jan. She now complains of acute pain in the left side of the chest, with confined respiration and cough. There is also great tenderness in the region of the uterus, the body of the uterus is felt above the brim of the pelvis, large, and hard, and pressure over it produces exquisite suffering. Pulse above 100, full, and soft. Countenance flushed; skin hot. Lochia and milk suppressed. V. S. ad 3xvj. Hirud. XXIV. Calomel and opiumi every second hour.

16th. The uterine pain was immediately relieved by the bleeding, but it returned again in the night, when fourteen ounces more were drawn from the arm.

In the afternoon the abdomen was considerably distended, but soft. The uterus still large, hard, and painful on pressure. Pulse rapid and feeble; great prostration of strength. Has been drowsy and oppressed since the morning, and makes no complaint but of distressing sickness at stomach.

During the 17th, the abdomen became more distended; the pulse more rapid and feeble, and she sunk on the morning of the 18th, the fifth day after delivery.

Dissection.—The lungs on the left side gorged with blood, pleura healthy. The caput coli and transverse arch of the colon were preternaturally vascular, and here and there covered with patches of lymph. The uncontracted uterus filled the brim of the pelvis. The peritoneum of the anterior part of the fundus and body of the uterus was of a dusky red colour, and the veins at both superior angles of the uterus were gorged with pus. The spermatic and hypogastric veins on both sides were healthy. The muscular tissue at the anterior and superior part of the uterus, where the placenta had adhered, was reduced to a soft, red coloured, flocculent pulp.

Both ovaria were much enlarged, vascular, soft, and their parenchymatous structure infiltrated with pus and lymph. Both Fallopian tubes were of a red colour, and contained pus in their cavities.

On the 16th of January, three days after the occurrence of the last case, another patient in the hospital was attacked the day after delivery with rigors, head-ach, and great tenderness of the uterus, with diminished lochial discharge. The pulse was 110, and weak; skin hot; the countenance pale and depressed. The abstraction of $\frac{3}{4}$ xx. of blood from the arm, and the application of twenty-four leeches to the hypogastrium were followed by immediate relief of all the symptoms.

Another case occurred on the same day, which yielded to similar treatment.

Case 3. On the 19th of January, 1830, with Mr. North of Upper Berkeley-street, I examined the body of a woman in Portman Mews, who had died twelve or fourteen days after delivery. It was stated by her medical attendant that the labour had been natural, and that she continued well till the fifth or sixth day after delivery, when tenderness of the abdomen came on, with fever, which soon assumed a low typhoid type. The pulse was rapid and feeble, and the tongue brown and parched. Sulphate of quinine and stimulants were liberally administered, but the symptoms assuming a more unfavourable character, Mr. North was called to see her. A puffy swelling of considerable magnitude had appeared over the left wrist, and another in the right thigh, about the middle.

Dissection.—A copious sero-purulent effusion into the abdominal cavity. The uterus larger than usual at the same period after delivery. The peritoneum, covering its anterior part, highly vascular, and covered with a thick albuminous layer. The veins proceeding from the left superior angle of the uterus, left ovarium, and Fallopian tube were fully distended with a purulent sanious fluid. The coats of the left spermatic vein, throughout its whole course, were greatly thickened and contracted; the lower half of the inner surface of the vein was lined with false membranes, and the cavity partially filled with pus. The superior half was blocked up with firm coagula of blood. The muscular tissue of the fundus uteri to a considerable extent on the left side was of a dull yellow colour, but the part preserved its natural consistence. The veins on the right superior portion of the uterus were filled with pus. The right spermatic and both hypogastric veins were healthy." 423.

We do not deem it necessary to quote any more of the cases of uterine phlebitis, since they would only be repetitions of what have already been adduced; but the following case of inflammation of the **ABSORBENT VESSELS** should here find a place, in order that the chain of our analysis may not be broken.

Case. "Mrs. Wall, æt. 32, No. 89, Berwick-street. Delivered of her second child on the 1st of November, 1830. Labour protracted from deformity of the brim of the pelvis. On the morning of the 2d of November, the day after delivery, she was attacked with acute pain of the uterus, with complete suppression of the lochia, and febrile symptoms.

The uterus could be felt preternaturally large and hard in the hypogastrium, and very tender on pressure. The other parts of the abdomen were soft and flaccid, and not affected by pressure. The pulse was 100, soft and compressible. A pint of blood taken from the arm was followed by syncope and great relief of uterine pain. Eight leeches were applied to the hypogastrium, and calomel and antimonial powder administered every fourth hour. Warm cataplasms were applied over the leech-bites.

3d November. Pain of uterus now produces little uneasiness, except when pressure is made over the hypogastrium. The uterus can still be felt unusually large and hard above the brim of the pelvis. Pulse extremely rapid and feeble. Countenance pale and dejected. She is now affected with somnolence to so great a degree that she can scarcely be roused.

She became gradually more feeble and sunk in the night.

Dissection.—Two pints of a dark brown serous fluid in the sac of the peritoneum. The right ovary enlarged to the size of a hen's egg, the surface of a bright red colour, and imbedded in lymph, its structure disorganized, the whole presenting the appearance of a soft cyst, distended with a purulent and gelatinous fluid. The left ovary had lost all traces of its natural form and texture, being reduced to a broken down flocculent pulp. The absorbents of the uterus, on the left side and in the left broad ligament were filled with pus. The veins and muscular structure were healthy.

The appearances of the ovaria in this case have been represented in the drawings presented to the Society." 429.

From the time the British Lying-in Hospital was opened, in the Summer of 1830, no case of uterine inflammation occurred till the month of December, when three fatal cases were observed. We shall give a very condensed outline of these.

1st. Case. Was a female aged 30, who was delivered on the 19th Dec. without any difficulty. On the 21st she had a severe rigor, followed by tenderness in the uterine region, head-ach, and suppression of the lochia, fever, &c. Bled to 20 ounces, and had three grains of calomel, with a quarter of a grain of opium every four hours. Thirty-six leeches to the hypogastrium. 22d. Very little alteration. 23d. Abdomen enormously distended, tympanitic, and painful. Pulse rapid—thirst urgent—somnolency—derilium. She died in the night. Permission could not be obtained to open the body.

Case 2. Mrs. Jones æt. 24, was attacked 24 hours after delivery, with sickness, head-ach, and rigors. The lochia were suppressed—pain in the hypogastria—collapse of the features—pulse 120 and feeble. These symptoms were exasperated, and she died on the 24th.

Dissection.—"The placenta had been attached to the left side of the fundus uteri, and the veins at this part of the uterus were lined with dark coloured false membranes, and gorged with pus. The lymphatics of the left broad ligament were distended with purulent fluid. Both ovaria were enlarged, and reduced to a soft flocculent pulp.

The Fallopian tubes were both red and vascular, and their cavities full of pus. The

peritoneal coat of the uterus at the posterior part was inflamed, and about four ounces of yellow serum were effused into the pelvis. A few inflamed patches were observed on the peritoneal surface of the small intestines." 431.

Case 3. C. Boyd, æt. 31, was admitted on the 25th Dec. for labour pains; but as they were deemed spurious, she returned home till the 28th, when they became violent, and she was delivered at her own residence. The labour was natural. On the 31st Dec. she was attacked with pains in the uterus, rigors, and occasional delirium, having a rapid feeble pulse, and pallid countenance. The abdomen was tumid and soft. The hypochondrium and iliac fossæ were tender. Jan. 1st. Complete remission of pain, except on firm pressure over the region of the uterus. Constant dozing—pulse 140—tongue brown and dry in the centre. 2nd. Much the same. 3d. Seized with excruciating pain of the abdomen, with distressing flatulence. Abdomen distended—pulse rapid, feeble, and irregular. She died on the 4th. The abstraction of eight ounces of blood from the arm, at the onset of the disease produced complete syncope. Mercurial frictions, with calomel and opium internally, were largely employed.

Dissection. "Abdomen distended with gas. Six ounces or more of red serous fluid in its cavity. Peritoneal sac not inflamed, except that portion covering the posterior surface of the uterus and its appendages. The cellular tissue connecting the peritoneal with the muscular coat, at the back of the cervix uteri infiltrated with pus, as well as that between the folds of the broad ligaments, on both sides. Both spermatic veins contained pure pus in considerable quantities, as did also the venous branches, at the angles and inferior portions of the uterus. The Fallopian tubes enlarged and vascular. The muscular structure of the uterus healthy. No appearance of pus was observed in the orifices of the veins, at the part to which the placenta had been attached." 433.

ON THE CAUSES OF UTERINE INFLAMMATION.

These are generally very obscure. In some cases the disease is distinctly referrible to injury inflicted on the uterus by protracted or instrumental labour. But most frequently it arises where none of these causes have been applied, and where we are compelled to refer it to some peculiar constitution of the atmosphere, or to contagious miasmata.

"It is a point of the utmost practical importance to determine, how far contagion is to be considered as a cause of the disease; the writers on puerperal fever are, however, completely at variance on this subject. Dr. Hulme maintains that it is not more contagious than pleuritis, nephritis, or any other inflammatory disease, and M. Tonnellié, who has recorded the history of the most fatal epidemic which has ever occurred in Paris, asserts that contagion was clearly out of the question there, for, in the Maternité, the women who were newly delivered had each a separate apartment, and yet were attacked with the disease, while in the sick ward of the hospital, no instance of the propagation of puerperal fever ever occurred." 436.

The evidence of M. Dugés against contagion is still more strong. The sentiments of Baudelocque are in unison with those we have mentioned. In the great hospitals, however, of Dublin, Edinburgh, Vienna, and London, it has appeared to be contagious. Dr. Gordon, Dr. Armstrong, and Dr. J. Clarke are contagionists. The latter, indeed, says "it is hardly possible to prove that it is not infectious; but it has arisen also, as far as we can judge, as an original disease in private practice, where there had been no communication with infected persons." This we imagine will apply to more diseases than puerperal fever. Dr. Lee himself is doubtful on the question of contagion. He tells us that, "in many cases, it has occurred in the most destructive form where the idea of contagion could not be entertained." On the other hand, he observes—

"In the last two weeks of September, 1827, five fatal cases of uterine inflammation came under my observation. All the individuals so attacked had been attended in labour by the same midwife, and no example of a febrile or inflammatory complaint of a serious nature occurred, during that period, among the other patients of the Westminster General Dispensary, who had been attended by the other midwives belonging to the institution.

On the 16th of March, 1831, a medical practitioner, who resides in a populous parish in the outskirts of London, examined the body of a woman who had died, a few days after delivery, from inflammation of the peritoneal coat of the uterus. On the morning of the 17th of March, he was called to attend a private patient in labour, who was safely delivered the same day. On the 19th, she was attacked with the worst symptoms of uterine phlebitis; severe rigors, great disturbance of the cerebral functions, rapid feeble pulse, with acute pain of the hypogastrium, and peculiar sallow colour of the whole surface of the body; she died on the fourth day after the attack, the 22d of March, and between this period and the 6th of April Mr. ——— attended two other patients, both of whom were attacked with the same disease in a malignant form, and speedily fell victims to it.

On the 30th of March, it happened that the same gentleman was summoned to a patient, a robust young woman, seventeen years of age, affected with pleuritis, for which venesection was resorted to with immediate relief.

On the 5th of April there was no appearance of inflammation around the puncture which had been made in the median basilic vein, but there had been pain in the wound during the two preceding days. The inner surface of the arm; from the elbow nearly to the axilla, was now affected with erysipelatous inflammation. Alarming constitutional symptoms had manifested themselves; the pulse 160, tongue dry. Delirium had been observed in the night.

On the evening of this day the inflammation had spread into the axilla. The arm was exquisitely painful, but in the vicinity of the wound, which had a healthy appearance, the colour of the skin was natural, and no hardness nor pain was felt in the vein above the puncture.

On the 6th patches of erysipelatous inflammation had appeared in various parts of the body, the upper and inner surface of the left arm, and in the sole of the left foot, all of which were acutely painful on pressure. The inflammation of the right arm had somewhat subsided. The pulse was 140. The tongue brown, dry, and furred. Restlessness, constant dozing, and incoherence; when roused, she was conscious. The countenance cold, heat of the surface irregular.

The 7th, pulse rapid, countenance anxious, teeth and lips covered with sordes, somnolence and delirium. The left arm above the elbow was acutely painful and very much swollen. The right was but little painful, and the erysipelas had made no further progress. The patches of erysipelas on the forehead and sole of the foot had disappeared,

but there was a slight blush of inflammation on the inner side of the calf of the left leg. The symptoms became aggravated, and she died on Saturday, the 9th April.—I examined the body with Mr. Prout on the 11th, and the following morbid appearances were observed.

The wound in the median basilic vein was open, and its cavity was filled with purulent fluid. The coats of this vessel and of the basilic vein, to its termination in the axillary vein, were thickened, so as to resemble the coats of an artery. The inner surface of these veins was redder than natural, and at the upper part had lost its usual smoothness, but there was no lymph deposited upon it. The mouths of the veins entering the basilic were all closed up with firm coagula of blood or lymph. The cellular membrane along the inner surface of the arm was unusually vascular, and infiltrated with serum. This infiltration was to a much greater extent along the situation of the erysipelatous inflammation of the left arm, but the veins of this arm were perfectly healthy. The abdominal viscera were sound." 441.

But, whatever view we take, as to the contagious or non-contagious nature of the disease, Dr. Lee thinks that his doctrine of the proximate cause cannot be affected; since the symptoms, morbid anatomy, and remedies all prove that, whatever be the nature of the remote cause, "it acts by exciting inflammation of the uterine organs." With regard to the nature of the inflammation, it is difficult to determine whether it be of a common or of a specific kind. "It certainly (says Dr. Lee) arises where individuals are not exposed to the ordinary causes of inflammation, and it often reigns as an epidemic, particularly in hospitals; and in this respect it resembles hospital gangrene, erysipelas, and other specific inflammatory diseases, which are generally supposed to depend on a vitiated state of the atmosphere. Like these diseases, too, it ceases without any assignable cause perhaps for several years, and then re-appears in the same establishments, and is attended with the same destructive consequences."

Ponteau believed the uterine inflammation to be of an erysipelatous nature, and the same opinion was entertained by Drs. Home, Young, Abercrombie, and others; but pathologists and physicians are very far from being agreed upon this point; and it is doubtful if the serous membranes be liable to erysipelatous inflammation. Dr. Hodgkin, the able anatomist, avers, that the appearances after death, in puerperal peritonitis, do not differ from those observed in ordinary peritonitis of the male sex.

"In the Autumn of 1829, a short time before the epidemic broke out in the British Lying-in Hospital which led to its being closed for several months, two children died of erysipelas. In one of these which I examined after death, there were inflammation and suppuration of most of the branches of the umbilical vein, and extensive peritonitis. Another fatal case occurred in the course of the epidemic, and on examining the abdomen I found the peritoneum extensively inflamed, with a copious effusion of sero-purulent fluid. A few days before the re-appearance of the disease in the hospital in December last, an infant died of erysipelas of the external organs of generation and abdomen, and the same diseased state of the peritoneum was observed. Another infant was attacked with gangrenous erysipelas of the extremity of the right fore-finger on the 28th of December, whose mother had been cut off on the 24th by uterine phlebitis. Mr. Blagden has related to me a similar case which occurred in his practice last Summer. A midwife of

the hospital had a severe attack of erysipelas of the face, a few days after attending in labour one of the fatal cases I have related of inflammation of the absorbents and uterine appendages. No. XVIII. These are certainly remarkable coincidences, but they are not sufficient I conceive to establish the fact, that it is an erysipelatous inflammation which attacks the uterus subsequent to delivery." 444.

At the close of this paper Dr. Lee has placed an abstract of 112 cases of uterine inflammation, by which it will be seen that, at one period, the inflammation affects chiefly the peritoneal surface of the uterus, whilst at another it affects its deeper seated-tissues, resembling, in this respect, some other inflammatory diseases when they assume an epidemic form.

"It may also be observed from an examination of this abstract, that in the course of a few days, in the same ward of the hospital, and in patients who were placed in contiguous beds during the prevalence of the epidemic, all the varieties of uterine inflammation which I have described, occurred in their most perfect forms. In some the local and constitutional symptoms were immediately subdued by general and topical blood-letting, but in other cases the symptoms were from the commencement such as to contra-indicate the use of this remedy, and it was not had recourse to. Such cases usually terminated fatally in spite of local bleeding, and the exhibition of internal remedies, and on examination after death, the veins, muscular structure, or appendages of the uterus, were found to be the textures most frequently inflamed.

This fact, that at different seasons, different textures of the uterine organs are liable to be affected with inflammation, and in varying degrees of intensity, will enable us in some measure to reconcile the discordant opinions contained in the works of authors, both with respect to the symptoms of puerperal fever, and the treatment required in different epidemics." 445.

The pathology of the disease in question is indeed a puzzler; yet the prevailing sentiment is evidently in favour of inflammation in the abdomen or pelvis as the essential feature of the malady.

"Pinel, Bichat, Laroche, and Gardien, found the peritoneum inflamed in so many fatal cases of puerperal fever, that they have considered it to depend essentially on peritonitis. An eminent French author who has subsequently observed the disease, and who entertains the same views of its inflammatory nature, declares that nothing can be more absurd, more chimerical, or contrary to the spirit of analysis and observation, than the idea of a puerperal fever, that is to say, a fever essential or peculiar to a woman recently delivered.

The bodies of fifty-six women were examined who had died in the General Hospital at Vienna in the Autumn of 1819 of puerperal fever, and in all of these, with the exception of two cases, where delivery had taken place some time previous to death, effusions of sero-purulent fluid were found in the abdominal cavity, and traces of inflammation in one or more of the abdominal viscera. The ovaria and Fallopian tubes were always more or less swollen, red, and tender, and the body of the uterus was always, in consequence of inflammation, flabby, tender, and easily broken down with the finger. It is also stated in the report of the epidemic, that the accession of fever is always preceded by marked changes in the whole system and particularly in the uterus, clearly indicating an inflammatory state. The symptoms were such that the inflammation combined with high fever could not be mistaken.*

* "Medical Annals of the Austrian States, 1822."

If we consult the works of the most celebrated writers in this country on puerperal fever, it will clearly appear that they all describe the disease, as commencing with sense of soreness, or exquisite tenderness, in the region of the uterus, and that where it proves fatal, the appearances on dissection are those which afford the most unequivocal proofs of inflammation of the pelvic and abdominal viscera. Dr. William Hunter says 'The uterus, all the viscera, and every other part are found inflamed. There is a quantity of purulent matter in the cavity of the abdomen, and the intestines are all glued together.' The account of the morbid changes of structure by Drs. Hulme, Joseph Clarke, Gordon, Campbell, Mackintosh, and others, is nearly the same, and Dr. Hamilton, who believes that puerperal fever is a fever *sui generis*, nevertheless admits that the appearances on dissection are exactly similar to the descriptions generally given by these authors, and that acute pain of the abdomen is a primary, and not a secondary symptom of the disease. Dr. H. positively affirms, that puerperal fever is a disease of a putrid or typhoid nature, requiring for its treatment, wine, volatile alkali, bark, glysters, and animal jellies; and yet in direct opposition to his theoretical views, and as if involuntarily led by the symptoms to a correct conclusion respecting the true character of the affection, he has laid down as the first indication of treatment 'to moderate local inflammation by purging and hot fomentations.'

Dr. John Clarke admits that in most cases of the true epidemic puerperal fever, there has been some degree of inflammation in the cavity of the abdomen, and that the uterus and ovaria sometimes partake of the inflammation. In two cases which he met with there was an appearance of pus in the veins of the uterus. The brain was always in a natural state. In one instance only was there an appearance of disease in the chest. The effusion of sero-purulent fluid into the sac of the peritoneum, was so disproportioned however to the degree of inflammation, that he supposed it to arise from another cause than inflammation. It is now however admitted by all pathologists, that these copious effusions into the peritoneal sac, are invariably the result of acute inflammation of the peritoneum, and not of any peculiar disposition of the vessels of the part affected, as Dr. Clarke had supposed.

Dr. Gooch, the latest author of observations on puerperal fever in this country, has accurately described the symptoms and treatment of puerperal peritonitis. As a substitute for the ordinary names, child-bed fever, puerperal fever, and peritonitis, he has employed the term peritoneal fever 'to express the fact that an affection of the peritoneum is an essential accompaniment of the disease, without defining what that affection is, because it is not uniform. This term, peritoneal fever, is perhaps the least appropriate that Dr. Gooch could have invented, for he admits that the disease may occur in its most exquisite form and yet leave few or no traces in the peritoneum after death, by which we might have been enabled to determine that this membrane had previously been the seat of the disease.' 451.

Dr. Gooch remarks it as a thing very unaccountable that some of the worst forms of puerperal fever leave little or no trace of disease in the peritoneum after death.¹ But our author has pertinently observed that Dr. Gooch appears to have been satisfied with simply inspecting the serous surface of the uterus; whereas he, Dr. Lee, is strongly inclined to believe that, had he (Dr. G.) gone behind the peritoneum, and carefully examined the spermatic and hypogastric veins, the absorbents, the uterus and its appendages, with the sub-peritoneal tissues, he would frequently have found the products of inflammation. The absence of increased vascularity in the peritoneum, and of lymph or serum in its cavity, are no proofs at all that the subjacent tissues are

in a sound state. Dr. Lee very properly differs from Dr. Gooch in the reliance which is to be placed on the effects of remedies, as pointing out the nature of puerperal fever. Nothing can be more contradictory or conflicting than the testimony of authors on the subject of remedies. The study of morbid anatomy, is, assuredly, a *sine qua non* in the investigation.

"That diffused pain of the abdomen with a rapid, soft pulse, not unfrequently occurs, at particular seasons, without inflammation, or with a very slight degree of inflammation, in delicate nervous women after parturition, and that these symptoms are relieved by opiates and warm fomentations, without either general or local blood-letting, will readily be admitted. That such cases are however, if not essentially different in their nature, at least widely different in degree of severity, from cases of sporadic or epidemic puerperal fever or uterine inflammation, is clearly proved by the following observation of Dr. Gooch himself. 'There seemed to be nothing dangerous in this form of disease, provided the nature of it was not mistaken, and improper remedies not used, yet it so strikingly resembled peritoneal inflammation that it was invariably taken for it by the practitioners who witnessed it.' The results of the practice in the Westminster Lying-in Hospital in the years 1828 and 1829, still more decidedly prove that the cases described by Dr. Gooch were not cases of low child-bed fever, for of twenty-eight women who were attacked with the disease and were treated, as he had recommended, with Dover's powder and warm cataplasms, seven died, or one in four." 455.

TREATMENT OF UTERINE INFLAMMATION.

This varies so much, as to severity, in different cases and in different seasons, that much modification of treatment must, from time to time, obtain. At some periods there is a marked disposition to the disease, evinced by tenderness of the uterus on pressure, and acceleration of the pulse, where inflammation is not actually developed, or where it takes place in so slight a degree as to yield to anodyne remedies and fomentations. Professor Chaussier was so convinced of the necessity of a continued and gentle perspiration to prevent and to combat puerperal peritonitis, that he made every woman recently delivered take, from time to time, and at intervals more or less distant, small doses of Dover's powder, while emollient cataplasms were applied to the abdomen.

Where peritoneal inflammation, however, is fully developed, such treatment will not avail.

"In no inflammatory disease, are the good effects of blood-letting more strikingly observed than in the first variety of uterine inflammation, puerperal peritonitis; we do not however, as Dr. Gordon has stated, possess a remedy in it which will certainly cure the disease in all cases if early applied. Where the symptoms of peritonitis manifest themselves with great violence, twenty ounces of blood should be immediately drawn from the arm, and in a few hours, if relief is not obtained, $\frac{3}{4}$ xvj. more should be abstracted. The first general bleeding should be followed without loss of time by the application of leeches to the abdomen, regulating their number by the severity of the pain, and the strength of

the pulse. Warm linseed meal poultices, or fomentations to the hypogastrium should invariably follow the application of the leeches; and five grains of calomel with an equal quantity of antimonial powder should be administered every two or three hours. After the second dose of this medicine, I have frequently exhibited a strong purgative draught, repeating it according to its effect. It will often be found, that the pain of the uterus continues with considerable severity after this treatment has been pursued; and that the most decided benefit results from combining half a grain or a grain of opium, or five grains of Dover's powder, with each dose of the calomel and antimony.

Where the symptoms do not indicate an attack of a formidable nature, we ought not to carry depletion so far. In a large proportion of cases, one bleeding will prove sufficient, and in many the application of leeches alone, with the internal remedies now mentioned, have subdued the disease." 457.

Oil of turpentine Dr. Lee has seen employed in a few cases without any advantage. Emetics he cannot recommend, though they have been highly praised both by French and English practitioners.

In respect to the treatment of inflammation of the uterine appendages, and the deeper-seated tissues of the uterus itself, whether of the absorbents, veins, or the muscular structure, the symptoms from the commencement, Dr. Lee thinks, do not indicate general bleeding.

"In cases where the re-action at the invasion of the disease has been violent, with acute pain of the uterus, and venesection has been employed, the relief obtained has only been temporary, if at all experienced; and, in some instances, the abstraction of only a few ounces of blood from the arm has produced syncope, or been followed by rapid sinking. Where the local pain is severe, leeches and warm fomentations seem to be the appropriate remedies; but, as far as my own observations go, we are in possession of no remedial means which effectually control those varieties of inflammation of the deeper-seated structures of the uterus which I have attempted to describe. The French physicians are, however, of a contrary opinion, and are satisfied that we possess a powerful remedy, even in the worst cases, in mercury, employed so as to excite salivation. In one case of uterine phlebitis, I pushed this remedy by inunction to a great extent, and brought the system under the influence of mercury in less than twenty-four hours; yet the progress of the symptoms was not arrested, and the patient died, as I had observed others do where the remedy had not been administered. In other cases I have employed mercury to a great extent internally, without the slightest benefit; and it may justly be doubted from the results of M. Tonellé's practice, whether or not it possesses the influence he supposes, for of forty-three cases where mercury was used as the chief remedy, only fourteen recovered." 460.

Dr. Lee, in conclusion, recommends to the serious attention of his brethren, a full inquiry as to the means of preventing the occurrence of uterine inflammation in lying-in hospitals. The records of the British Lying-in Hospital, the *MATERNITÉ*, the Dublin puerperal institutions, and the tables published by M. Chateau Neuf, clearly prove, that the average rate of mortality greatly exceeds that of establishments where individuals are attended at their own habitations. Should it be found that we have no effectual means of preventing this mortality,

the question might fairly be raised as to the policy or humanity of keeping up such establishments at all.

We have now given a most extended analysis of Dr. Lee's paper, which is by far the most valuable in the volume of transactions under review. Dr. Lee has been eminently successful in substantiating the points of pathology which he undertakes to prove. We were not quite convinced by the facts which he brought forward, in a preceding paper, for the support of his theory of PHLEGMATIA DOLENS, and we stated our doubts. But we candidly admit that, on the present occasion, we can scarcely start an objection to the conclusions at which this able, zealous, and unwearied physician has arrived. We trust and hope that the patronage of his brethren will encourage and foster that indefatigable spirit of investigation which Dr. Lee has for several years evinced, and successfully cultivated.

XII.

CHOLERA EPIDEMICA ; OR INDO-RUSSIAN CHOLERA MORBUS.

WE have been preparing an extended article on this wide-wasting pestilence, and have brought it down to the time of writing this short notice. But we find that no limit is yet put to the ravages of the disease—no satisfactory history of its European progress compiled—no probable *cause* of the malady ascertained—and no consolatory prospects of a successful treatment brought to light! Such, at least, is the case at the moment we now write, viz. the middle of August. Under these circumstances, we have thought it best to wait till the close of the year, when, in all human probability, the epidemic will have spent its force (perhaps paid us a visit)—and our boards of health and commissioners of investigation will have had time to arrange their information, and lay it before the public at large. The successive, and, we are sorry to say, the *successful* campaigns, which this enemy of the human race has hitherto made in his march through the wide regions of the East, and now towards the shores of the Atlantic, render it probable that, if he does approach our coast in some shape or other, and with more or less of his exterminating virulence—this will not be the year, even if he have added to his original destructive and gigantic powers the terrible auxiliary CONTAGION. But, whether the disease be epidemic, contagious, or both united, it will be prudent, during the ensuing Winter's cessation of the conflict, to collect all our information, and array, if possible, all our resources of science and art—of hygiene and therapœia, preparatory to the Summer of 1832.

The mortality and the extensive prevalence of cholera at St. Petersburg, where our medical commissioners are now in active observation, will furnish them with ample opportunities of investigating the effects of remedies, the post-mortem changes, and the nature of the disease, more especially as to its contagious or non-contagious character. Our wishes and our hopes coincide with our expectations, that this dreadful malady will be found to possess but a

low range of contagious power, such as arises *contingently* in various epidemic diseases, not originally endued with that character. Should it be otherwise—should cholera prove half so infectious as the fears and the pre-conceptions of people would appear to determine, we tremble for the safety of our countrymen, who are now in daily and hourly contact with this NOVA PESTIS! Considering, indeed, that the commissioners are subjected to the same primary causes of cholera which are striking down thousands around them—that they are unavoidably exposed to contagion (if it exists) in all its shades of force and concentration—that their minds are kept in a state of incessant anxiety, doubt, and we may add dismay—that their bodies must be worn down with toil of the most insalutary kind—considering these and many other circumstances, we say it will be almost a miracle if they escape. If their situation be viewed with a philosophic and an unprejudiced eye, an *attack* of the disease would afford no proof of contagion—though an *escape* would offer strong presumptive evidence on the other side of the question. Be this as it may, the number of medical observers now on the theatre of the epidemic, from France, England, and Germany, will furnish us, before the conclusion of the year, with ample materials for reflection, though we fear that these materials will tend little to unanimity of sentiment on either side of the Channel. The doctrine of contagion will be adopted and opposed with all the zeal of enthusiastic conviction, while almost every individual will maintain that his own mode of treatment is the best. If the present time, therefore, be one of doubt and uncertainty, the future, should the epidemic invade us, will be one of distraction and alarm. We have often been asked what we ourselves would do, in the event of meeting with a case of the malignant cholera? Our opinion may not be worth publicity; but, as it contains that which we would wish to be pursued in our own case, it has at least the merit of sincerity.

The first step which we would advise would be, the placing the patient in a warm bed, where he is to be chafed with hot flannels all over the body, while a hot bath is preparing. The flannels might be impregnated with ardent spirits; and hot water, as soon as procured, substituted for the dry flannel. Mean time, we would administer three grains of opium and ten of calomel *instantanè*, followed by moderate potations of warm brandy and water, while the skin was cold, and the circulation concentrated about the internal organs. We would be inclined to repeat three grains of calomel and one of opium every two or three hours, till re-action took place, and the tide of the circulation flowed to the surface. As soon as the bath was ready, we would place the patient in it, having put a good allowance of salt and mustard in the water. If, by these means, heat be restored on the skin, and the spasms and vomiting be allayed, the great danger is over, and the management of the febrile re-action requires but very moderate skill. The injection of 50 or 100 drops of Batley's sedative, or common laudanum, in a small quantity of starch or gruel, into the rectum, might be beneficial. These, we conceive, are the main indications of treatment; and if they fail, we apprehend that most of the complicated machinery of therapeutics recommended, more from speculation than experience, will be found to share the same fate. Towards the close of the Periscope, we may probably have something to communicate respecting the treatment pursued by our brethren in Russia.

Periscope ;

OR,

CIRCUMSPECTIVE REVIEW.

"Ore trahit quodcunque potest, atque addit acervo."

I.

TWO CASES OF DISEASE IN THE CIRCULATING SYSTEM. By Dr. J. P. KAY, Physician to the Ardwick and Ancoats Dispensary, Manchester.

THESE cases are related by Dr. Kay, in the third Number of our highly respectable contemporary, the North of England Medical and Surgical Journal.

CASE 1. "E. F. an old woman, (aged 75) who had been some time bed-ridden, had paralysis of the muscles, accompanied by great loss of sensation, throughout the whole of the left side of the body, which had occurred two years before the period when I first saw her. She was then evidently suffering from very general organic disease. She was not much more emaciated and withered than might be expected in a feeble woman of her age, but the peculiarity of her physiognomical expression indicated serious lesion of some important organ, besides the disease of which external evidence existed.

When I first saw her, slight spots of gangrene had appeared upon the extremities of the toes of the right foot. Her strength was supported by tonics and stimulants, but these, with the aid of local applications, seemed to exert little influence over the progress of the disease. The gangrenous spots gradually spread, encroached on the surrounding parts, and in the course of a month, by a slow, but uniform progress, had affected one-half of the foot. The soft parts slowly sloughed out, with little or no discharge, and left the bones of the meta-tarsus

bare. The foot, above the line of the gangrene, became somewhat œdematous.

The femoral artery in the right groin beat much less forcibly than usual. The leg was drawn up a little, and gradually became more so, until it was bent nearly to a right angle at the knee. This appeared *not* to be accidental, and the limb could not be straightened without much pain and considerable difficulty. There was, however, no muscular rigidity; the muscles had indeed lost almost all power. Accidental motions of the leg, as when it was displaced by the carelessness of an attendant, gave great pain in all the tissues. It was difficult, from the age and weakness of the patient, to discover whether any slight power of voluntary motion remained in the extremity. I found the leg always in the same position, excepting that it gradually became more flexed, and she affirmed that she had no command over it, and could not, by the greatest efforts, move it. Her strength gradually declined, and, at the end of the fifth week, she died. Twenty-eight hours after death, I proceeded to examine the body.

Eleven years before, it appeared, from the history given to us by the attendants, she had fallen and wounded her head, and an exfoliation of the upper part of the frontal and parietal bones had taken place. The integuments and the pericranium, as well as the bones themselves, were exceedingly thin, in the situation where the shock of the fall had been received. The dura mater adhered very firmly to this portion internally.

The brain was removed. On examining its exterior, I discovered a considerable ef-

fusion of serum beneath the arachnoid membrane. About three ozs. also flowed from the base of the cranium, and from the spinal canal. The basilar and vertebral arteries were diseased. Their lining membrane was opaque in many portions, the coats were brittle, the artery distended without increased growth of tissue, and cartilaginous and caseous deposits were found beneath the internal coat. This disease extended to several small arteries in the brain, and was particularly evident in those of the Corpus Callosum. The cerebrum was firm, and exhibited, when divided by the scalpel, many bloody points. The ventricles contained much serum. The left hemisphere was, in other respects, every where healthy. An abscess was discovered in the posterior part of the right corpus striatum, which stretched beneath the tania to the left thalamus. The surface of the thalamus was softened, broken down, and presented shreds, which floated in the serum contained in the ventricle.

The left lung was very emphysematous: it contained in the superior lobe a cavern formed by the softening of tubercular matter, and exhibited in the lower lobe a bulla of the size of a large apple. The parietes of the right ventricle of the heart were discovered to be extremely thin, little muscular fibre was left. Only a few fasciculi were scattered through adipose substance and cellular membrane. The parietes of the left ventricle were invaded by a similar degeneration, but not to the same extent. The mitral valve was much thickened, and granular deposits of a somewhat tubercular character were scattered over it, and the semilunar valves of the aorta were somewhat enlarged at their base.

Some spots of deposition occurred beneath the lining membrane of the aorta, in its ascending portion, but from the arch onwards it exhibited a continued and unusual state of disease. Plates of bone had been deposited beneath its lining membrane: in some places, they were completely covered by it; but, in others, only partially, from its subsequent ulceration. Occasionally, this ulceration had proceeded so far as to divest the plate of bone of its membranes over

three-fourths of its extent, and it then projected into the cavity of the artery, powerfully impeding the progress of the blood. Among these osseous depositions were interspersed cartilaginous layers, and portions which resembled tubercular secretion. There were also some few abscesses, and in two or three instances organized lymph, which, from its colour, appeared to have been occasioned by an extravasation of blood beneath the lining membrane. All the small arteries which communicated with this portion of the aorta were similarly diseased. At the first lumbar vertebræ the artery was slightly contracted. Here the osseous deposit surrounded the whole of its cavity and prevented its collapse, even under strong pressure. It appeared a strong bony tube, and preserved this character beyond the bifurcation almost to the internal ring.

The disease was traced into the internal iliac, and bony deposits could be felt in all the small arteries of the pelvis. The arteries which escape from the pelvis by the ischiatic notch were all similarly diseased on both sides. Both the gluteal arteries were curiously obstructed. Their coats were firmly ossified: a clot appeared to have been formed in their cavities, from the loss of action and roughness of the internal membrane, which, presenting obstructions, had accumulated deposits, and at length occasioned a stagnation and clot. Subsequently, this lymph had become organized, and having partaken of the general tendency to osseous deposition, had become a piece of bone filling the cavity of the artery, and adhering to its internal parietes.

The coats of the right femoral artery were much more disorganized than those of the left, but the same disease prevailed in both vessels, and also in the profunda femoris. In the right femoral, however, at the situation where the tendon of the adductor crosses the artery before it enters the popliteal space, the cavity was obliterated, and the artery beneath contained a clot which filled four or five inches of the main trunk and subdivisions, and it was not further traced. The obliteration was occasioned by circumstances similar to those

which existed in the aorta. A portion of the thickened lining membrane had been set free by ulceration, or by rupture from some sudden motion of the leg, and, rolling upwards in the cavity of the artery, had at once effectually obstructed it as with a valve, and prevented the progress of the blood. The left femoral was not obstructed.

Some hours had been spent in making this examination, when the lateness of the evening, and some pressing engagements, reluctantly compelled me to desist from prosecuting this interesting inspection into the smaller branches, and into the brachial and carotid arteries and their ramifications. There can be little doubt, that many of the smaller arteries would have exhibited specimens of the peculiar methods of obliteration discovered in the gluteal and femoral.

This remarkable instance of disease in the lining membrane of the arteries seems to indicate the source from which even ossific deposits sometimes arise. Many of the peculiar products discovered in the tissue of the arteries seemed to be the immediate consequences of inflammation. Abscesses and lymph are its common terminations. The osseous and cartilaginous layers may, therefore, be considered as resulting from morbid actions which ensued in the effused lymph after its organization, and which being connected with the tissue of the artery (which is itself, from '*depraved nutrition*,' liable to these changes) became the bed of ossific deposits. The peculiar process by which the lining membrane of the artery is separated from the subjacent coats, whether by violence or simply by diseased action, is well described by Mr. Turner,* the Professor of Surgery to the Royal College of Surgeons of Edinburgh; and this case affords an exemplification of the opinions which he has so ably supported. The portions projecting into the interior of

the aorta to a certain degree impeded the flow of blood, and threatened to form still greater obstacles.

It becomes of consequence that we should be able to recognize a malady of such importance in its origin, when, as in some of the cases on record, the inflammation is acute, and may be treated in the ordinary way. Subsequently, we can have little hope of arresting the progress of such serious disease existing in a tissue of low vascular organization, and little susceptible, as far as we can judge, of influence from external or internal remedies.

The symptoms in the acute stage must vary as the inflammation is local or general, and even when it affects the general arterial system its history appears to be vague.† After rigors, the pulse becomes quick and hard, and the general symptoms of acute inflammatory action supervene. They are accompanied frequently by slight cough, diffused pain in some portion of the chest or back, and sometimes by continued nausea. The pain afterwards may subside in the part first affected, and acutely affect some distant organ, or a limb in the course of an artery. In this case, greater heat is often felt in the part where it exists. In addition, it may be remarked, that, though the symptoms of acute inflammation are present, it cannot be affirmed that any particular viscus is its seat, and the pains suddenly wander about the body, chiefly following the trunks of the larger arteries, whose pulsations become at intervals throbbing and violent. In the subsequent stages the pulse suddenly becomes weaker and slower, at other times very feeble and quick. Severe rigors are followed by profuse perspirations. The countenance is pale and extremely anxious, and the mental faculties are often affected. In the course of some particular artery a hardness, a swelling, or

* "On the Spontaneous Obstruction of the Canals of the Larger Arteries.—Transactions of the Medico-Chirurgical Society of Edinburgh, vol. iii. part i. p. 105."

† "See Mr. Turner's Paper, (Op: Cit.) also Dublin Hospital Reports, vol. v. p. 17. Case of Arteritis in the Annual Reports of the Meath Hospital. By Dr. Graves and Dr. Stokes."

a knotty feeling is discovered. The patient experiences the sensation, 'that *something has given way in the limb.*' The pulse is lost in one or more of the extremities, and the part becomes cold, perhaps paralyzed. But ere this period the *consequences of inflammation* have ensued, and the history refers to its second stage.

The symptoms are, however, unfortunately frequently much less prominent, and the disease declares itself only by its fatal consequences.

In the present case the paralysis of the left side of the body evidently depended on the abscess discovered in the right corpus striatum and thalamus, which first organ is most frequently found diseased in hemiplegia. The paralysis of the right leg, however, depended on the obstruction of the artery, and the imperfect supply of blood to the muscular and nervous tissues. The necessity of a larger supply of blood to muscle than is necessary for the purposes of nutrition has not, I think, sufficiently attracted the attention of physiologists in recent researches. It may, perhaps, be shewn that this supply has a direct relation to the *mechanical* phenomena developed in muscular action. This is not the place to insist on these opinions ; but, whatever result be obtained by more extensive investigations, this case is illustrative of the paralysis depending on a *diminished supply of blood* to muscular fibre."

CASE 2. This was a case of obliteration of the cava inferior, with fungus hæmatodes of the kidney.

The subject of the disease was not seen by the author till within a week of his decease. The patient had been a man of dissipated habits, and intemperate in the use of spirituous liquors. His faculties had been much injured by his disease, and no very clear history could be obtained. He had suffered from severe pain in the lumbar region, shooting in the course of the ureters, accompanied by sickness. There was no calculus in the bladder. He complained of severe head-achs, dizziness, insomnia, and occasional delirium. His legs and ab-

domen swelled, and his strength fled. It is needless to mention the remedies employed, as they all failed to produce any relief.

"On opening the cavity of the abdomen many quarts of serum were removed. A large tumour, treble the natural size of the kidney, was discovered growing from its texture. Externally it had an irregular lobulated form, and was of a deep red colour. On making an incision through the centre of this morbid growth into the structure of the kidney, it was discovered that it sprang from, and was intimately connected with its tissue, into which it graduated by insensible structural changes. Its consistence was spongy and soft, and its colour generally resembled that of muscle. Portions, however, of irregular form and various magnitude, and of a whitish or opaline colour, were scattered through it. Their texture was somewhat more fibrous, and they were bounded by defined lines, like membranous envelopes. Portions of the more vascular and redder mass were softened into a thick liquid of light red colour, and opaque, resembling a mixture of blood and pus ; and other portions were passing, in various stages, to the same state. This morbid structure extended to the superior extremity of the kidney, graduating as below by insensible shades into the healthy texture of the viscus. An aperture was found near the origin of the pelvis of the kidney, connecting the tumour with the emulgent vein, which, as well as the Vena Cava, above the point where the emulgent vein opens into it, was filled with the softened matter above described. But from this point downwards till after its bifurcation, the cavity of the Vena Cava was entirely obliterated by the effusion of lymph, which was organized at the superior part, and passed gradually into coagulated blood in the portion near the origin of the iliac veins. Both the emulgent and the cava above the insertion of the latter were very considerably enlarged. A small quantity of the softened encephaloid tumour was found in the right auricle. The artery was of its natural size, and healthy, as were also the right kidney, and its vessels. In the liver

were several tubercles of various magnitude, from that of a small bean to the size of a pigeon's egg. These, when cut into, were found to consist principally of white cerebri-form matter, though interspersed, in some of the larger, with striæ of a fleshy colour like that of the diseased kidney. Some of these were manifestly approaching to the stage of softening, and from their centres a small quantity of a puro-sanguineous liquid exuded on pressure with the scalpel. In the superior lobe of the right lung was a small hard cartilaginous body of a greenish grey colour. The heart and its valves were healthy.

The circulation, in this case, appeared to have been chiefly carried on by the inosculation of the veins supplying the rectum and sigmoid flexure, with those which communicated with the intestines situated in the higher regions of the abdomen. Their enlargement was however not so great as might have been expected."

II.

CANCER OF THE BLADDER—PUZZLING CASE.

[HÔPITAL ST. LOUIS.]

A MAN named Rossignot, aged 65 years, entered the hospital on the 13th January, 1831, saying he had been afflicted with rheumatism for a long time. His complexion was delicate, his limbs slender, and his features shrunk—in fact, he was greatly emaciated. He complained of a burning heat internally, and had much thirst, with constipation of the bowels, but little or no tenderness on pressure of the abdomen. He had severe pains in the loins, and indeed in both of the lower extremities. He had incontinence of urine, and his body and clothes smelt strongly of that excretion. This incontinence had existed for eighteen months, with some periods of retention of the same, the urine being very turbid, and sometimes mixed with blood. M. Biett conceived that there was some organic disease

of the urinary organs. The pains in his loins increased rather than diminished; and on the night of the 16th of the same month, he was seized with hæmaturia; and the next day, in the midst of interrogatories, he suddenly expired. The reporter, M. Berard, here asks what medical man, after observing the above symptoms, would hesitate to pronounce the disease NEPHRITIS CALCULOSA? This opinion was that formed by M. Biett, and participated in by M. Berard; yet they were both mistaken.

On dissection the kidneys were free from disease. The ureters were as large as the jejunum. The bladder filled a great part of the inferior pelvis, and was knotty on its surface, its cavity almost obliterated, and its parietes thickened enormously by a malignant fungoid disease. A cauliflower excrescence, of a cancerous character projected from the bladder towards the inguinal ring; and another penetrated through the great ischiatic notch, compressing and blending with the great sciatic nerve. A third excrescence ascended from the fundus of the bladder towards the lumbar vertebræ, compressing the ureters, and obstructing the discharge of urine into the bladder. These post mortem facts explained all the vital phenomena, though it would not have been easy to predicate the real nature of the malady during life.—*Revue Medicale*.

III.

MEDICAL PROVIDENT INSTITUTION OF SCOTLAND.

In our Review for March, 1830, we called the attention of our readers to this excellent institution, and to that Number we refer them for a detailed account of its objects and advantages. Since then the Institution has held its fourth annual general meeting, and it gives us pleasure to learn from the Report of the Directors which was then read, that it is becoming better known, its objects better understood, and in consequence that it is rising in favour with the profession. The Directors having recom-

mended that the benefits of the Institution should be thrown open to the families and relations of the members of the medical profession, this was unanimously approved of by the meeting. We are inclined to think that this will render the Institution more popular. Members of the profession will now have it in their power to make provision in it against the casualties and contingencies of life, not only for themselves, but also for those in whom they are most deeply interested.

We may remind our readers, that, the principle of this society is that of mutual assurance. Its whole funds arise from the contributions of the members, and belong entirely to them, there being no body of proprietors. "Every five years the affairs of the institution shall be brought to a balance, and two-thirds of the surplus divided among the contributors, and the remaining one-third carried forward as a guarantee, and to meet any extraordinary contingencies."

IV.

ON TARTRITE OF IRON AND AMMONIA.

By Mr. AIKIN.

THE following communication we have taken from the Medical Gazette, No. 187.

"Having lately paid some attention to several of the combinations of tartaric acid with oxide of iron and alkali, I beg leave to mention one or two salts but imperfectly known, which appear to me to supply what is yet a desideratum in pharmacy—namely, a soluble salt of iron of uniform composition, not decomposable by alkalies, nor depositing oxyde by keeping, and of no unpalatable taste. In a chemical point of view, too, some of these compound salts are not uninteresting.

It is well known to chemists, being, I believe, first noticed by Klaproth, (Essays, vol. ii. p. 108,) that the presence of a certain proportion of tartaric acid in any of the acid

solutions of iron entirely prevents the precipitation of the metallic oxyde by the addition of any alkali, pure or carbonated, and in any excess: so that, in fact, there is no method of extracting the oxyde of iron from these compounds, except by calcining the salt in a red heat, to destroy the vegetable acid and then dissolving out the iron from the carbonaceous residue.

The salt which I principally wish to introduce to notice, is the *tartrite of iron and ammonia*, which is made by combining the *proto-tartrite of iron* (itself insoluble) with ammonia, which gives it solubility and all the other properties which may be required for its medicinal use.

When a bundle of fine iron-wire is digested with a warm solution of tartaric acid, hydrogen gas is soon given out; and after a while, the wire becomes coated with a grey crust of proto-tartrite of iron, which partially dissolves in the liquid, so long as there is much excess of acid, giving it a chalybeate taste. But as saturation advances the crust becomes less soluble, and closely adheres to the undissolved iron, so as to make the process of saturation intolerably tedious if left to itself. A little variety of management, therefore, is required, and this may be done in two ways, as follows:—

1. Put into a large iron ladle two ounces of tartaric acid, about as much clean iron filing free from brass, and four ounces of water, and heat it over a fire. Sulphuretted hydrogen gas rises immediately; the mixture soon swells, froths, and thickens, with a slate-grey pasty mass, which begins to form, and the whole must be kept constantly stirred with a broad spatula from beginning to end. More water must be added, which should be no more than to prevent the materials from spirting out by the bubbles of gas, keeping the mixture thick enough to prevent the filings from sinking. In this way, when about twelve ounces of water have been expended, in half an hour the ladle will be filled with a slate-grey puffy mass, scarcely sour to the taste, which may now be emptied into an earthen mortar; and by standing a few

hours in a warm place the acidity is entirely gone, and the mixture now consists of grey *proto-tartrite of iron*, mingled with the undissolved filings.

2. Another method, which takes longer time, but saves the wear of the iron ladle, is simply this:—Put into a large earthen mortar any quantity of tartaric acid, with two or three times its weight of iron filings; which, indeed, is much more than is wanted to saturate the acid; but the roughness of the filings is of essential use in mechanically separating the insoluble tartrite when rubbed with the pestle, and thus presenting clean surfaces to the acid. Add hot water, just enough to dissolve the acid, and set it in a warm place to digest. As before, sulphuretted hydrogen rises, together with that black oily fetid scum which always attends the solution of iron when this gas is evolved. In an hour or two some of the grey *proto-tartrite* is perceived, and the mass thickens and froths. Continue the digestion in a warm place, rubbing the materials very frequently, and adding just water enough to allow the gas to escape. In this way, with very little pains, the acid becomes saturated in about two days, all sourness disappears, and, as in the former instance, the mixture consists of the grey *prototartrite of iron*, with a large excess of undissolved filings.

Next, without drying the mixture, pour into the mortar some liquid caustic ammonia, the stronger the better, and mix with rubbing. The moment the ammonia touches the *prototartrite* it changes it to a deep olive green, and the mass, by rubbing, stiffens to the consistence of printers' ink. On further dilution with water (cold distilled), and supersaturation with the alkali, the whole dissolves into a deep bottle-green liquid, leaving little else but the untouched iron filings; which last may be washed with water, dried, and set by for future use.

The green liquid is now a strong solution of ammoniacal *prototartrite of iron*, with some excess of alkali, and its taste is saline and chalybeate, but without any astringency; and it is by the repeated evaporation and solution of this liquid that the salt

is obtained which I propose for use. Put the green liquid, with the washings, into a flat porcelain dish, and evaporate, with a moderate heat, to perfect dryness, but without scorching. As the excess of ammonia flies off, the liquid loses its green hue, becomes of a deep red-brown, and yields a salt of the same colour. Re-dissolve this in water, with a little more ammonia, separate by subsidence and the filter a small portion of brown sediment, and once more evaporate the clear solution to perfect dryness, in a heat about equal to that of a pretty warm oven. Till absolutely dry, the salt is extremely tough and tenacious; but when no more moisture remains it is perfectly brittle, and separates from the vessel with extreme ease.

This salt, the *tartrite of ammonia and iron*, has now the following properties:—It is in very shining, glossy, brittle fragments, of so deep a red as to appear black in mass, and looking not unlike crushed garnets, but without any definable crystalline texture. When a little is spread upon paper, in half a minute many of the smaller particles begin to split and fly asunder, like recently fused glass of borax. It is not deliquescent. It dissolves with the greatest ease in water, hot or cold, and almost to any extent, forming a deep red liquid, which yields the salt again on evaporation, unchanged, and without any further deposition of oxide, and this for any number of times. But the most remarkable change that takes place is in the taste. Before evaporation, this was simply saline and chalybeate, but now it has become so strongly saccharine as to equal that of extract of liquorice, and is so powerful when in moderate dilution, as to cover almost every other flavour. Spirit of wine coagulates a strong solution of the salt, but it becomes clear again on dilution. The watery solution pretty soon becomes mouldy when kept by itself, and then it deposits much oxide of iron; but this change may be entirely prevented by adding from a sixth to an eighth of spirit of wine. I have now kept, for a considerable time, a solution of the salt (32 grains to the fluid ounce) in a mixture of seven parts of water and

one of spirit of wine, without the smallest change.

This solution, which might be adopted for medicinal use, mixes without visible decomposition with all the alkalies, pure or carbonated, and in any excess; with most of the neutral salts used in medicine—sulphate of soda or of magnesia, for example; with the decoctum aloë c. and with the infusions of orange-peel, quassia, or camomile. The fixed alkalies, however, so far decompose it as to render the ammonia sensible to the taste, but the solution retains its clearness.

With regard to the chemical composition of this salt, it is somewhat complicated, and I have not been able to analyze it fully. It is composed of tartaric acid, ammonia, protoxide and peroxide of iron, and a good deal of saccharine matter. This last is doubtless formed at the expense of part of the tartar, and perhaps by the agency of the protoxide of iron, assisted by a heat above that of boiling water. Hence it is necessary, to form the sugar, that the solution should be fully dried, for the saccharine taste does not appear till then. Acetate of lead causes a copious separation of tartrite of lead, not white, as might be expected, but deeply tinged with oxide of iron, that falls with it. With regard to the state of oxidation of the iron, as it strikes an immediate black with galls, part of the metal must be peroxide, but certainly not the whole, for there is a compound of *pertartrite* of iron and ammonia, which I shall presently describe, which differs essentially from this salt, and which may be converted into it by digestion with fresh iron filings. I know of no means of estimating the relative proportions of these two oxides in a compound like this, but doubtless it is due to the presence of the saccharine matter that the salt makes no farther progress in oxidation during an indefinite number of solutions and evaporations. The mere quantity of metal is easily obtained by calcination. When the dry salt is heated with a spirit lamp on a thin platina shell, it first gives out much vapour of ammonia, with visible dark smoke; it then emits sparks

till red hot, when it still retains its form, but with the loss of two-thirds of its weight, and becomes a dark glossy coal, strongly magnetic. By thus igniting 12.5 grains of the salt, I obtained, in two experiments, 4.45 of this magnetic coal, which was deflagrated with a pinch of nitre, dissolved in strong muriatic acid, recovered by ammonia, and gave 4.3 grains of dry red peroxide of iron. Hence we may conclude that 100 grains of the salt contain 20.08 grains of iron, which would make 30.96 of protoxide, or 34.4 of peroxide. Also, 100 parts of this salt contain as much metallic iron as 119 of crystallized sulphate of iron; and these proportions may be borne in mind in prescriptions for medicinal use.

On the average of several experiments, I find that 100 parts of crystallized acid of tartar yield from 156 to 160 of this tartrite of ammonia and iron.

It is not absolutely necessary that the ammonia be caustic in preparing this salt; the carbonate, I find, will answer very well, but it requires a longer digestion before the grey prototartrite will combine with sufficient ammonia to become entirely soluble. Similar triple salts might doubtless be made by saturating the proto-tartrite with potash or soda, but there is this advantage in the ammonia, that no nicety of proportion in it is required, as any excess flies off as the solution dries.

I shall now say a few words on the combination of tartaric acid with peroxide of iron and ammonia. When a small quantity of peroxide of iron, wet, and newly-precipitated from its muriatic solution by ammonia, is thrown into a hot solution of tartaric acid, it soon dissolves into a red, acid, astringent liquid. More of the peroxide, however, causes most of what is dissolved to separate, and the whole becomes a reddish white subsalt. This, like the prototartrite, is readily made soluble by saturation with ammonia, and is not disturbed by any excess of alkali. When thoroughly dry, it becomes a very tough tenacious mass, totally different from the other in appearance, and extremely absorbent of the moisture of the air, though not entirely deliquescent. To the taste it

is saline and chalybeate, but scarcely, if at all, saccharine. Its solution, boiled for some time with iron filings, lets fall much oxide; and the clear liquor, by evaporation, passes into the state of the tartrate before described, with its distinguishing liquorice taste and glossy brittleness.

Many other mixtures still more complicated may be produced by taking a salt of iron already formed, adding tartaric acid, and then saturating the whole with ammonia. All these, if enough of the tartaric acid is present, remain undisturbed by excess of alkali. One compound alone I shall now notice, as I think that this also might be usefully employed in medicine—it is the *tartarized sulphate of iron and ammonia*.

Dissolve green sulphate of iron with half its weight of acid of tartar, in a little cold water; add liquid ammonia, which instantly makes it green and turbid, but the solution becomes quite clear when saturated with the alkali. Evaporate to dryness; redissolve with a little more ammonia, filter if required, and again dry. This forms a deep-red saline mass, readily and totally soluble in water. The taste is saline and chalybeate, but scarcely saccharine. The solution, in mere water, appears to keep for an indefinite time without the smallest change, the tartar being preserved by the well-known antiseptic power of the sulphate of iron. This mixes uniformly with alkalies and neutral salts, but is immediately curdled by spirit of wine. When dissolved in water, in the proportion of two or three grains to the ounce, and with a minute excess of soda, the taste is hardly perceptible. In this case also the iron is probably a mixture of the two oxydes. I find that 100 grains of clean sulphate of iron, besides losing its water of crystallization, acquire an increase of about twenty grains by this treatment; so that, in prescription, twelve grains of the dry tartarized sulphate of iron may be considered as containing ten grains of sulphate of iron, taking the latter in its usual crystallized state.

With this salt may be made a convenient *syrupus ferri*. Dissolve eight scruples of the above tartarized sulphate of iron in 2 1-2

ounces of water; melt it in four ounces (Troy) of white sugar, and boil for a few minutes. This yields about five ounces of a brown clear syrup, strongly chalybeate, but not unpalatable when properly diluted; and it does not seem liable to ferment. One fluid drachm of this syrup contains four grains of the tartarized sulphate, equal to 3 1-2 grains of sulphate of iron.

I have also made some *tartarized muriates of iron* in the same way, which have the same general properties, but do not yield results of any particular interest; and the pungent saline taste of the muriate of ammonia predominates so as to render them less palatable than the others.

I remain, Sir,

Yours with respect,

C. R. AIKIN."

V.

A CERTAIN REMEDY FOR THE TOOTH-ACHE. By Dr. RYAN.

IF the experience of others confirms that of Dr. Ryan, in the simple remedy here proposed for a most distressing malady, he will deserve a civic crown, in addition to the thanks of the profession.

"A remedy which is capable of affording immediate relief to the excruciating pain of tooth-ache, without the slightest pain, being produced by its application, has long been a desideratum; and I feel great gratification in being the medium of proposing such a valuable remedy to the profession.

It is right to observe, that before I resolved upon this course, I deemed it necessary to determine the value of this agent, and to try it upon myself and many other individuals; and ample experience has convinced me of its efficacy.

Like many of our best remedies, that which I proceed to notice was discovered by accident. A gentleman who attends my lectures (Mr. Myers, of Newington Causeway), had frequently applied sulphuric acid

to his tooth with some relief; but on one occasion, he, in a moment of confusion, took down the next bottle to his remedy, which contained nitric acid. To his great surprise, he experienced immediate relief, and without the slightest pain. Since that period he has not suffered from tooth-ache, though three years have now elapsed. During the last winter he informed me of the success of this remedy, which induced me to try it, while labouring under the most intense pain from tooth-ache. The effect was immediate, and no pain whatever was induced. I have since used it in numerous cases, and invariably with complete success. In some instances the disease does not return for days or weeks; and in others not for months.

The best mode of employing it is by means of lint wrapped round a probe, and moistened with the acid, which is then to be slowly applied to the cavity of the tooth; care being taken not to touch the other teeth, the gums or the cheeks. On withdrawing the probe, and inquiring how the patient feels, the usual reply is, 'the pain is entirely gone.' The mouth is next to be washed with tepid water. The acid should be gradually applied to the whole cavity of the tooth, or otherwise a second application will be required before complete relief will be obtained.

This remedy may be used when the gum and cheek are inflamed, so as to preclude the possibility of extraction. In cases where the diseased fang remains, and when the caries faces the adjacent tooth, it obviates the necessity of extraction in all cases of hollow teeth, which all practitioners declare to be desirable, if possible; and it enables the dentist to perform the operation of 'stopping or filling teeth,' much sooner than he could otherwise accomplish. In a word, it will alleviate a vast deal of human suffering, and supersede a most painful operation. It is not a panacea for all the diseases of the teeth and gums, though a certain and efficacious remedy for the most common cause of tooth-ache. It will be a valuable remedy for children, delicate persons, and pregnant women. It does not

accelerate the decay of the tooth to which it is applied.

As the employment of this acid in the disease under notice is not recommended in any pharmacopœia, ancient or modern, of these or other countries with which I am acquainted, and as tooth-ache is now a most prevalent complaint, in consequence of the inclemency of the season, I think a more favourable opportunity cannot occur for the communication of the information described in this paper."—*Med. and Surg. Journ.*

VI.

ON SPINAL AND SPINO-GANGLIAR IRRITATION. By W. R. WHATTON, Esq. of Manchester.

THIS is a practical dissertation, of considerable length and much merit, published in our North of England contemporary, on disease which has lately attracted a good deal of notice, but not more than it deserves. The author of this paper says, that the authority of Mr. Pott's name and opinion has, unfortunately, put a stop to inquiry respecting diseases of the spine—most surgeons after his time concluding at once, that all forms of spinal disease sprang from the same strumous source—caries of the vertebræ. Hence, he thinks, our diagnosis has been attended with confusion—our plans of treatment sometimes useless, sometimes even injurious. "No person, for instance, in these days, thinks of curing lateral curvature through the medium of caustic issues, while, on the other hand, caries is but seldom treated without them." After making a quotation from Copeland, where that surgeon regards pain on pressure, or increased sensibility to external heat, as indicative of spinal disease, Mr. Whatton observes as follows:—

"In the early stages of caries, as well as of lateral curvature, acute pain on pressure of the spinous processes of the vertebræ is rare, and when any great degree of in-

creased sensation does exist in these parts, during the progress of the former disease, it does not occur until the bodies of the vertebræ are considerably affected, until the curve is formed, or until the processes have partaken, in common with the other neighbouring parts, in the consequences of the disorder.

In cases of Spinal Irritation, on the contrary, this symptom is always one of the first and most constant, and it was in such cases, I apprehend, that the application of heat produced the severe uneasiness spoken of by Mr. Copeland. That gentleman constantly made use of this expedient, afterwards, for the detection of the early symptoms in cases of diseased Spine indiscriminately, and hence it followed, 'that he was unable to reduce the result to any given rules; and that sometimes he expected a great degree of pain, and it did not occur, while at other times, it took place where he least expected it.'

In those diseases commonly termed psoas abscess, also, whether arising from affection of the ligaments of the Spine, or of the intervertebral fibro-cartilages, or from caries of the bodies of the vertebræ themselves, there is scarcely ever any acute pain referable to the spinous processes of the back; and the symptoms are not unfrequently so very equivocal, that the true nature of the complaint is often overlooked or mistaken.

In many cases of caries, indeed, the patients do not experience sufficient uneasiness, at the time of the setting in of the complaint, to induce them to notice their situation, and instances have occurred to me, in which the usual symptoms had been so entirely unnoticed, that there was no suspicion of the complaint existing, previous to the actual discovery of the curvature.—Not so, however, in Irritation of the nerves of the spine.

In the writings of Messrs. Baynton, Wilson, Harrison, Shaw, and Dods, I do not perceive any notice of this affection; and it is not improbable that, as these gentlemen wrote expressly on the lateral curvature, they did not think it necessary to di-

rect their attention to the various diagnostic appearances which characterize Spinal Irritation, or that it had escaped their observation altogether, as a separate form of disease, and had, perhaps, in some instances, even been taken for the earlier stages of distortion.

However this may be, it is certain that there does exist a wide difference between these two forms of disease, each originating in a separate and distinct tissue, assuming a distinct type, and being followed by different sequels.

In cases of Irritation, the most prominent and characteristic symptom is the highly painful sensation produced by pressure on the points of the vertebræ, in that division of the spine where the disease is supposed to reside; *and this symptom is never wanting.* Its occurrence is to be explained, I presume, by the supposition that the irritation has already extended itself along the posterior nervous twigs, supplying the processes and arches of the vertebræ, and the numerous muscles and ligaments attached to them;—and its early appearance is easily understood, when we recollect that these twigs are the first which are given off by the lateral nerves on either side, and arise immediately from the spot implicated in the inflammation. There is another remarkable difference to be noticed with regard to this form of disease of the Spine. While cases of caries occur indifferently in the Spines of either sex, those of Irritation, like lateral curvature, are found chiefly among females. Of several hundred cases, which I have had opportunities of examining, I have not seen more than half a dozen occurring in male patients."

Mr. W. is not aware that any particular method of education, any kind of study, or any position of the body, predisposes to this complaint. He has met with it as frequently in the middle and lower classes of life as among the fashionable classes—among married females, the mothers of families, as among single ladies—rarely among girls. The youngest patient was thirteen years of age, and the oldest fifty. He had never

seen it prove fatal. We shall now proceed to the—

SYMPTOMATOLOGY.

"In slighter cases, the symptoms are mild and intermittent, and the patients are able to attend to their various avocations, without much pain or uneasiness: and it is only when attention has been excited, by inquiry into the nature of their complaint, that they become aware of the extent of the disorder.

Irregular shooting pains in the limbs, and in the integuments and muscles of the chest and abdomen; occasional headach and loss of appetite; tremblings, and obscure uneasiness over the shoulders and down the back; with a general debility and disinclination to exertion or exercise, are the signs by which this form of the disease has usually manifested itself.

In the more urgent cases, the uneasiness becomes fixed and constant; the tremors are alarming, and the severe darting and lancinating pains over the chest and abdomen, and through the limbs, are harassing and intolerable. Sometimes the cases had become protracted in their duration, and the patients had suffered for months under the most aggravated forms of the complaint, without any suspicion having been excited as to its real nature and origin;—and, in other instances, mistaken views of the disease had subjected them to various kinds of treatment, totally unnecessary, and, generally, quite inadequate to the removal of the complaint. In all these cases, however, there was one symptom, which, as far as my own experience has gone, has never been absent;—and that is a tenderness, upon pressure, in some part or parts of the spinal column.

In the slight cases, this pain is not so urgent as to cause much distress, and the pressure can be borne without any great suffering or disturbance; in others, the tenderness and excitement are so great, that, in running the finger along the spine, the instant the irritable spot is arrived at, the patient starts from under the pressure, and

a degree of anguish is occasioned, so exquisite and excruciating, as frequently to produce the most violent spasms, which either go off gradually in repeated faintings, or subside into periodical and less painful dartings along the nerves running from the part which has been subjected to examination.

The darting pains correspond, in a remarkable manner, with the origin of the irritated nerves, and are very frequently found to strike through the chest, and to produce an acute smarting over the ribs and sternum, and throughout the neighbouring parts, where those nerves distribute their ramifications, and supply energy and sensation.

Every part of the Spinal Cord is subject to the disease: sometimes it is observed to fix itself upon one portion, and sometimes on another; frequently it is found existing in different portions, and occasionally over the whole column.

When the upper cervical nerves are affected by the irritation, the seat of the pain is most usually found in the suboccipital and lateral region of the cranium; the muscles of the face and the integuments of the neck are also affected; and there is a considerable degree of stiffness and inability to move the head and jaws. I have now and then met with a case where the pain has extended from the back part of the head, in a direct line over the skull, to the forehead, indicating a diseased state of the nerves supplying the occipital and frontalis muscles. When the affection fixes itself in the lower cervical portion of the Spine, the disease is generally announced by severe darting pains and cramps in the course of the axillary and brachial nerves, and along the upper and fore-arm, and by burning sensations, and aching of the muscles enveloping the shoulder joint, and upper and lateral parts of the chest. The severity of the pain is sometimes observed to fall upon the fore parts of the thorax, and to extend itself to the breasts; the glands of which become very painful to the touch, and are sometimes indurated and enlarged. This

painful state of the glands of the breasts occurs as frequently in married females as in single women, and I have not perceived any thing to indicate a suspicion that one class of females is more liable to its attacks than another.

In these affections of the upper extremities and chest, there is usually a preternatural degree of lassitude and debility, frequent sighing, tremblings, and nervous twitchings; and sometimes also the wrists and hands are benumbed, and do not admit of their usual facility of direction. When the first division of the dorsal nerves forms the seat of the malady, we have the same painful shootings along the course of the anterior branches supplying the intercostal muscles, and edges of the ribs and sternum, and the upper parts of the epigastrium; and great soreness and aching in the ramifications of the posterior branches which go to the integuments and muscles behind the chest.

In the lower division, there is great pain around the abdomen and over the stomach; a feeling of soreness and smarting along the ribs; tightness around the chest, with frequently a considerable degree of loss of sensation and energy in the intercostal muscles;—these latter symptoms, with consequent dyspnœa, and a burning sensation over the sternum, and at the point of the xyphoid cartilage are, I think, never absent in well-marked cases of irritation of the dorsal nerves.

Atony of the abdominal muscles, causing much uneasiness and difficulty in expelling the contents of the bladder and rectum, is a constant symptom; and irregular pains, and sometimes partial paralysis in the integuments covering the lateral parts of the belly and thighs.

In the lumbar nerves, we have severe aching in the region of the loins, soreness over the skin and muscles of the genital organs and upper part of the thighs; painful and spasmodic dartings along the crural nerves, and down to the ankles and feet, with trembling, unsteadiness, and loss of power, similar to what is observed in the upper extremities. And in affections of the

sacral nerves, the sacro-spinales and glutei muscles are found to partake in the disease, and the parts in the neighbourhood of the perineum.

In some acute cases of Irritation of the roots of the Spinal Nerves, or in those that have become chronic, the disease is very frequently seen to extend itself through the medium of the communicating branches, to the ganglial system; and in addition, therefore, to those symptoms, which have just been enumerated, we have others, consisting chiefly of irregular and spasmodic action of the involuntary muscles, and of the perverted functions of those organs and viscera, which derive their nervous energy from the ganglia to which the irritation has been continued.

When the disease has been carried from the spinal nerves of the upper part of the neck, by the correspondent branches of communication, to the cervical ganglia, the chief additional symptoms are violent and stabbing head-achs, painful throbbings of the carotid and temporal arteries, and a fixed and heavy pain at the base of the skull, sometimes extending itself by the mastoid process, under the angle of the jaws, to the fore part of the neck.

When the middle half and lower portion of these nerves are in a state of irritation, or when the disease extends itself throughout the whole of the cervical spine, as is sometimes the case, the inflammatory excitement is communicated in like manner to the cervical ganglia, and thence, downwards to the cardiac nerves and cardiac plexus.

From this division of the ganglial system are furnished nervous branches going to the heart and lungs, to the aorta and the large blood-vessels of the parts situated within the thorax, and others which supply the involuntary muscles of these parts with their nervous energy. The heart and great blood-vessels are affected by irregular and spasmodic action; and are subject to various morbid and highly painful sensations; there is frequently severe aching and distress in the act of inflating the lungs, and a remarkable sensation of paralytic

depression in the attempt to expel the air. Any of these symptoms readily occur when the patient has been alarmed by a sudden or unexpected occurrence, or when she has been hurried by any little increase of exercise or mental application.

As the disease advances, these symptoms are more frequent, more strongly marked, and are less easily removed. The intervals of freedom from the complaint gradually contract, until at last the patient becomes so irritable, and suffers such severe and continual pain, that her spirits are worn down, and she becomes weary of existence.

Should the disease have arisen in the dorsal region of the spine, the same affection extends itself to that division of the ganglial system which gives off nerves to the organs and viscera of the abdomen. The solar plexus wholly, the semilunar ganglia singly, or the splanchnic nerves and thoracic ganglia, appear in these cases to be affected by the malady : all those parts, indeed, of the abdominal cavity in succession, which receive energy from the solar plexus, or its secondary ganglia, are more or less subjected to the irritation. The diaphragm, stomach, liver and spleen, and the large and small intestines, and kidneys, as their appropriate ganglia are affected, become, in their turn, or together, liable to the encroachments of the disease.

If the stomachic plexus be the seat of the disease, we have painful depression at the the region of the præcordia, especially after taking food ; tenderness on pressing the stomach ; difficult and incomplete digestion, attended with flatulence and preternatural distention ; a feeling of anxiety about the heart, periodical and violent palpitations, and vertigo. These impressions being carried, through the medium of the cerebro-spinal connexions, to the brain, are frequently productive of sudden and distressing terrors and alarms, and the patients are occasionally tortured by the fear of apoplexy or some other fatal disease, of which, however, there is no real or perceptible indication.

The secretions of the stomach are greatly perverted ; the gastric fluid becomes sour and unfit for the perfect solution of food ;

and whenever an attempt is made by the patient to extricate the nauseous air, which is plentifully formed, large quantities of acid watery fluid are brought up, and temporary relief is obtained from the removal of the distention and acrimony.

The biliary secretion in all probability too undergoes similar changes ; and although the liver, perhaps, may not be endowed with a degree of sensation equal to that of the other viscera of the abdomen, yet severe pain in that organ is occasionally detected accompanying affections of the secondary ganglia of the central plexus.

The large and small intestines, when the mesenteric plexuses form the seat of the disease, are visited with severe twistings, and painful distentions, most frequently extending over the region of the colon, and producing intolerable anguish and distress. The sensibility of these organs is also very often perverted, the filaments sent off by these plexuses to the intestines being exceedingly numerous and highly susceptible.

In an extension of the disease from the lumbar nerves to the lower division of the ganglial system, we have painful affections of the kidneys and uterus. The menstrual discharges are commonly interrupted, and generally profuse, especially when the complaint has been of some duration."

We could not abbreviate, without injury, the foregoing symptomatology, and have therefore given a long extract in the author's own words. We shall next advert to the

TREATMENT.

In common cases of spinal irritation the treatment is very simple. Abstraction of blood from the part where tenderness has been discovered, by leeches or cupping, generally affords relief ; and this is to be repeated, at intervals of three or four days, if the pains should return, as often as may be judged necessary. When the more urgent uneasiness has subsided, a small blister on each side of the affected vertebæ, or a single large one, above or below them, will be found beneficial. These must be repeated from time to time. Blisters are generally applied to the spine too soon after

leeching, by which irritation is increased rather than allayed.

"In recent and slight cases, a single bleeding, or the application of a blister, will frequently succeed in effectually removing the disease; and I have known several instances where the complaint had been misunderstood, and had existed many months, and even years, which have given way without difficulty when the curative means were applied to the true seat of the irritation, instead of the nervous filaments, which are the seat only of the distant symptoms. Some simple aperient medicine may be given, with a view of restoring the proper functions of the stomach and bowels, if it should be required, but more than this does not appear necessary; the depletion and blisters almost always proving sufficient for the removal of the irritation, and the restoration of the healthy functions following as a matter of course, as soon as the part has been properly relieved.

In the Spino-ganglial Irritation the same means are to be had recourse to, and it is necessary to attend, during the progress of the cure, to the state of the irregular secretions. In some cases, where the patient suffers from severe cardialgia, and is troubled with acid and flatulent eructations, I have generally been in the habit of prescribing the carbonate of soda or potass pretty freely, along with some simple bitter infusion; and in others, where restlessness and feverish excitement are urged, they have been allayed by the use of the liquor acetatis ammoniæ, and small doses of opium and the sub-muriate of mercury.

Where the fixed pains have entirely subsided, but where there yet remains a sufficient degree of uneasiness to disturb the comfort of the patient, I have had recourse, as advised by Mr. Teale, to the use of some stimulant embrocation, which is directed to be rubbed over the spine occasionally; such as the liniment: subcarb: ammoniæ, or camphorated oil with spirit of turpentine. These applications keeping up a degree of stimulus or moderate counter-irritation, have been productive of very good effects,

The flesh-brush, mustard poultice, or warm fomentation, will likewise answer very well.

Any debility consequent on the necessary depletion will soon be remedied by a gradual return to improved diet; and if any loss of appetite remain, the sulphate of quinine, or some of the preparations of iron may be useful; except, however, in chronic cases, or in some debilitated constitutions, these will seldom be required, and unless due attention have previously been directed to the state of the spine, they are inefficient and useless."

Some cases are detailed in illustration of the precepts here laid down, but we do not deem it necessary to insert any of them in this place. We think the paper very creditable to the practical talent of Mr. Wharton.

VII.

ON THE MEANS OF PREVENTING THE SPASMODIC CHOLERA.

(Tenth Observation.)*

In a former observation, I have attributed the epidemic form of cholera to a vitiated atmosphere acting on predisposed persons; we have yet to discover the source and nature of this depraved air before we can counteract its influence, and the state of the human body which lays it open to this disease before we can form a code of prophylactic measures.

The occurrence of spasmodic cholera under every variety of weather, and its return at uncertain periods, as well as its partial dispersion by even slight changes in the currents of the atmosphere, prove that the miasm is not generally distributed, and certainly lead to the supposition that animal or vegetable exhalations, where subjected to the action of an atmosphere possessing

* This additional observation did not arrive in time to be added to Dr. Smith's paper on Cholera, published in the 28th Number of this Journal.

peculiar properties, form with it the exciting cause of the disease. But cholera makes its attacks in situations so different from each other, that there is often no point of local resemblance; at one time it appears many hundred miles from the sea, at another, on its very shores; sometimes on low marshy grounds, often on dry lands: and narrow strips of country have suffered from its ravages, while both sides of these tracts have been exempt. We cannot therefore admit that marsh malaria has any thing to do with the production of cholera; and the communication of the disease by infection, in India, is hardly acknowledged, I believe, by any one who has watched its progress in that country. When we bear in mind, too, that cholera varies its aspect, or at least its mode of progress, with every season, we are compelled to hasten to the confession, that nothing but local and immediate investigation, with experimental analysis, can lead to the discovery of the true causes and constitution of the prevailing epidemic, and to the means which are most likely to prevent it.

Of the predisposing causes, or state of body which is obnoxious to spasmodic cholera, there is little more certainly known than of its external or exciting causes. We only know that no age, rank, sex, or character is safe from its attack; and while a malady thus sets at nought every physical law, it can afford but slender grounds for the formation of a prophylactic code. In the present state of our knowledge, perhaps the following plan might be as good as any.

The establishment in every town of a board of health, composed of the magistrates, clergy, and medical men of the place, who would visit all the manufactories and receptacles of the poor and working classes, remove the people from their laborious employments before fatigue or exhaustion were experienced, and ensure to them a sufficiency of wholesome diet, with a due proportion of good beer. The members of these boards ought also to have power to suppress all petty spirit shops, and to enable every poor family to brew a wholesome ale at home. They should

lessen, by every possible means, mental anxiety and discontent, and, when disease appeared, exert every faculty to discover its sources and to destroy them.

VIII.

LARYNGITIS—TRACHEOTOMY.

DR. ADAM HUNTER, Physician to the Leeds General Infirmary, has published an interesting case of this kind in a late Number of the North of England Journal, which we shall here abbreviate.

Case. Betty Fieldhouse, aged 30, was admitted into the Leeds Infirmary, 14th May, 1830. She was emaciated, and the mother of five children. Sixteen months previously, (during a confinement,) she was attacked with sore throat, which, after some time, increased in severity, and was attended with difficulty of breathing and swallowing. When received, her eyes were hollow—respiration wheezing—dysphagia—tumour or thickening behind the epiglottis—weak voice—frequent cough—mucous expectoration. Leeches, blisters, iodine, and sarsaparilla were prescribed. Afterwards a grain of calomel was ordered every night. No benefit appears to have accrued from the remedies, and on the 26th of May, we find the patient threatened with suffocation. On the 27th, in a consultation, tracheotomy was determined on.

Operation, by Dr. Smith. "The patient sat in a chair, the head being inclined backwards and held by an assistant; a perpendicular incision, an inch and a half in length, was made, by means of a fine small scalpel, upon the triangular space between the thyroid and cricoid cartilages, which was punctured with a bistoury. She took a deep inspiration at this moment, when a few drops of blood were drawn into the trachea, which produced such violent spasm as to prevent the progress of the operation for three or four minutes. Upon its subsidence, one or two veins were secured to prevent

confusion; and her head placed a little forward, as she breathed easiest in that posture. The bistoury was again introduced, making a crucial incision, and cutting away the flaps. The opening not being sufficiently large, a small portion of the upper part of the cricoid cartilage was scooped out. Her countenance brightened with an expression indicative of great relief. She swallowed two or three tea-spoonfuls of tea immediately afterwards, the first food of thirty-six hours; and by signs, expressed herself much relieved. An assistant watched her for three hours, during two of which she slept calmly, being the first sleep she had enjoyed for forty-eight hours.

6, p.m.—The orifice becoming choked, a coagulum was removed, and the sternothyroid muscle being drawn aside she breathed with ease.—To keep the orifice open, a probe was bent in the form of a speculum oculi, and retracting the muscle it was bound there by straps of Emp. Adhesiv. This succeeded only for a short time. Tea taken in two or three spoonfuls, passed entirely into the trachea; which produced much coughing. Milk thickened with flour to be administered per rectum every two hours.

10, p.m.—A short canula was introduced with the inferior part cut away, and held in situ by Emp. Adhesiv. Rests comfortably from its use. Before the operation, the pulse was quick and frequent, it afterwards improved and remained at 100.

28th.—2, a.m.—She was asleep: at 3 she awoke—the canula becoming choked, it was removed and cleaned, and the upper part cut away—she slept until 6½, a.m. when she was tolerably easy—got a few drops of tea down the œsophagus. The enemata continued.

11, a.m.—Internal orifice becoming contracted, a canula of larger caliber, cut similar to the former one, was introduced, the points being first made conical, and expanded afterwards further than the caliber of its central portion by means of a pair of dressing forceps, thus retaining itself in its situation, as the dressings being kept constantly loose by the discharge, would not

adhere. Breathes easier, continues to slumber.—Expectoration has been free since the operation, although, upon a forcible expiration, the mucus is partially expelled, when the following inspiration retracts it.

4, p.m.—Much exhausted—pulse feeble at 130, skin cool—tongue moist. Passing the finger down the anterior part of the throat, the epiglottis felt thickened and elevated, the rima glottidis thickened, and posteriorly an elevation turning back over the œsophagus. 7, p.m.—Has swallowed nothing during the last 24 hours.*

We need not pursue the narrative through the minute details. The patient lived till the 10th of June, when she sunk exhausted, and unable to expel the mucus from the trachea.

POST-MORTEM EXAMINATION.

"The larynx completely closed and impervious, apparently the consequence of chronic inflammation, so that respiration must have been carried on entirely by the artificial opening during the last ten days. The œsophagus, about two inches downwards, is adherent to the back part of the trachea; the anterior and posterior parts of the œsophagus also adhere to each other so closely, that a probe cannot be passed upwards or downwards. The œsophagus below the stricture was rather diminished in caliber, although perfectly healthy. Upon slitting it open behind, the fore-part of the Pharynx was found to be ulcerated in several places, with many deep fissures on its anterior part filled with mucus. One in particular, situated close to where the stricture was greatest, appeared to communicate with the Trachea; but upon examination was found to be a cul-de-sac. When the Epiglottis is depressed upon the Larynx, an open triangular space is left to the back part, the portions upon which it rests being thickened and elevated by inflammation.*

* "This, along with the stricture of the Œsophagus, will account for the ready passage the food found into the Trachea, and out at the artificial opening between the Thyroid and cricoid Cartilages."

Upon referring to the accompanying plate, it will be found that, just below the orifice marked as a cul-de-sac, the diameter of the œsophagus was not sufficient to admit even a probe."

IX.

TUBERCULAR DISEASE OF THE ABDOMEN. By Mr. SWIFT.

[Richmond Hospital.]

THE following case is very clearly and ably reported by Mr. Swift, in a late Number of our contemporary, the Medical and Surgical Journal.

Case. "Thomas Malone, aged 36 years, was admitted into the Richmond Hospital on the 24th of September, 1829, with considerable swelling of the abdomen, and decided marks of the existence of fluid within its cavity. On making pressure, a large flattened tumour, of firm consistence and irregular surface, was discovered occupying the epigastric, hypochondriac, and part of the umbilical regions, and terminating below by a well-defined margin, unequally convex, and notched so as to bear a close resemblance to the anterior edge of the liver. The correspondence, however, was not exact, the tumour could be nearly insulated superiorly, and it was more moveable than an enlarged liver would have been. Tumours equally firm, but more irregular and knotty, could be felt in the iliac fossæ, and in the lower part of the umbilical and hypogastric regions the central one particularly was moveable. There was scarcely any pain on making strong pressure, or after the closest examination, nor had the origin or progress of the disease been attended with any remarkable suffering. He complained of a sense of great weight at the stomach after taking any quantity of food, particularly animal, and stated, that vegetables produced the most distressing flatulence. If he ate heartily, the stomach generally rejected its contents in about an hour after his meal; but if the portion of aliment used was sparing and light, or if vomiting

had not taken place about the period mentioned, the process of digestion was completed. His pulse was soft, rather feeble, and varied from 80 to 90; he was affected with slight dyspnœa, which was materially increased by stooping; his tongue white, bowels costive, and subject to borborygmi. The dryness and harshness of his skin was remarkable; his urine was scanty (about a pint in twenty-four hours), and his thirst considerable. He slept badly, and, though not confined to bed, was languid and incapable of exertion. His form was much wasted, and his countenance pale, yellow, and stamped with that peculiar expression which long-continued suffering, however trivial, constantly impresses. There was no affection of the cerebro-spinal system.

About two years from the date of his admission, (previous to which he enjoyed excellent health,) he became infected with syphilis, from wearing a sailor's trowsers, purchased at a cast-clothes shop. The disease first appeared on the scrotum, next on the penis, and, in some time afterwards, he was attacked by heaviness and severe pains, chiefly in the shoulders, succeeded by an eruption of the papular kind, on his legs, arms, and forehead. For these symptoms, which he was informed were venereal, he took mercury for three weeks, was salivated, and got apparently well. While under the influence of mercury, he drank very freely, and was exposed to intense heats, being employed about the stove of a rectifying distillery.—From this time up to what he considers the commencement of his present disease, he became affected with chills, flushes of heat, perspirations, debility and loss of appetite. Four or five months afterwards, during the active prevalence of these symptoms, swelling of the abdomen took place, with obstinate costiveness, piles, scanty urine, sensation of weight in the epigastrium after taking any considerable quantity of food, and pains shooting from the cartilage of the ninth rib, towards the lumbar vertebra, on the left side. About three months afterwards his breathing became difficult, he experienced pain in the left side of the epigastrium on stoop-

ing, and then, for the first time, felt the tumour in the abdomen. He stated, that, when he discovered it; he thought it might be two palms breadth in extent, and that it had been progressively increasing since. For the reasons which have been mentioned before, he has avoided animal and vegetable diet; and for the last six months, lived almost exclusively on tea and slops. Four or five days generally intervened between each alvine evacuation; but the colour of the stools is natural. He frequently hears a loud rumbling noise in the great intestine, accompanied with pain round the lower part of the abdomen, which he regards as a call to stool, but is never affected with tenesmus. Flatulence is a source of great annoyance to him, and he feels more relieved by the expulsion of wind than fecal evacuation. About three months before admission, he had bilious vomiting, which continued for three weeks, attacking him every second or third morning. He went into Stevens's Hospital sometime afterwards and got hydragogue purgatives, and a solution of cream of tartar, which drink he thinks reduced the size of the abdomen, but gave no relief to the other symptoms.

From the date of his admission to the 6th of October, his treatment consisted in friction with volatile liniment to the abdomen, purgative draughts, blue pill occasionally, and enemata, which gave some slight relief.

Oct. 7th. To have the belly rubbed with the same liniment, combined with tartarized antimony and ung. hydrarg.

13th. Potio potassæ super. tartrat. ad libitum. Two of the following pills to be taken night and morning:—

R Pil. rhei. ℥ij. Ext. colocynth. ij. Cap-sici, gr. v. Olei carui, ℥lv. Ft. pil. x.

22d. Has two evacuations daily since he has been using the pills. Occasional tenesmus; flatulence less troublesome; thirst diminished. Urinary secretion as before; tongue and appetite unimproved. The liniment has produced an extensive crop of pustules over the abdomen.

31st. Complains of pain in the left side of the epigastrium; to rub the liniment as before over the affected part.

4th Nov. Taking his pills, which produce two motions as before, the last scanty, and attended with griping; abdomen tense; tumour undiminished.

6th. Pain in the left hypochondrium, again complains of want of sleep. Countenance pale and sunken. Diarrhœa with tenesmus; the stools thin, slimy, and greenish; some irritability of bladder. Tumour as before; no œdema of the lower extremities. The diarrhœa continued for about a week, and the stools were occasionally tinged with blood. It ceased on the 14th.

24th. Dyspnœa increased. It affects him now when he lies on his left side; appetite worse—emaciation increasing. Abdomen tympanitic.

16th Dec. Frequent vomiting almost immediately after taking food; œdema of the left lower extremity.

29th. Dyspnœa increasing. Numbness of the left thigh, with progressive œdema and coldness of the entire limb; more emaciation; vomiting as on the 16th, which continued until the 5th of January, when it was checked.

Jan. 9th, 1830. Has been using friction with volatile liniment over the left lower extremity. Ordered ℥j of the following mixture:—4tis horis.

Mist. camphoræ, ℥iv. Spirit. ammon. aromat. 3j. Sp. etheris oleosi, ℥iiij. M.

14th. To have his mixture repeated; œdema increasing.

23rd. Swelling of the left lower extremity very great; œdema commencing in the right leg and foot. Vesications have formed on the anterior part of the left leg, and burst, discharging a large quantity of serous fluid and emptying the limb. The integuments surrounding the vesicles are of purplish colour. Fluid in the abdomen much lessened, and the surface and figure of the diseased mass rendered more evident. No sleep; increasing debility. To have opii, gr. jss. o. n. ℥ss. of decoct. genistæ, with half an ounce of supertartrate of potass daily; his draughts as before occasionally; a poultice p. d.

26th. Cuticle extensively separated from the anterior part of the left leg. From

the toes to the upper part of the ulcer, the surface around presents an erysipelatous blush. The sore itself is of a deeper red, and is coated over with a layer of lymph matter.

29th. Sloughing of the limb rapidly increasing—dyspnoea aggravated. Has been lying on his right side for the last few days. Great thirst; insomnolence and exhaustion; pulse cannot be felt—is evidently sinking.

30th. Died.

Necroscopic Phenomena.—On examination the thorax and upper extremities appeared much emaciated; the abdomen swollen, with distinct sense of fluctuation, and the lower extremities affected with extensive anasarca. On cutting into the abdomen an immense quantity of fluid gushed out, of a serous character and reddish tinge, and closely resembling that which is effused in ascites. In this fluid was seen floating a vast number of colourless or whitish transparent bodies, of a flattened, spheroidal, or lenticular form, and of the average size of a small hazel-nut, in each of which were observed spots of minute vascularity. There was some variety in the degree of transparency, and on holding them to the light, a slightly opaque spot was observed in the centre of each. The consistence and firmness possessed by these tubercles was that of the healthy lens in the young subject. An immense tumour occupying the situation, and possessing the dimensions of the omentum, now presented itself to view, extending over the epigastric, hypochondriac, and part of the umbilical and lumbar regions. To the surface of this tumour, a number of the bodies before mentioned adhered slightly, and could be detached from it by friction. It was covered by a membrane resembling those of the serous class, but it was impossible to trace satisfactorily its exact continuity and identity with the sound peritoneum. A delicate membrane, of similar character, invested each of the small bodies.

A section of the tumour from behind forwards shewed it to vary from an inch to two inches in thickness, and to consist of a

number of cells, each capable of containing about the bulk of a garden-pea, and filled with a transparent gelatinous fluid. From the analogy of their appearance, size, and contents, to those of the small bodies described before, it appeared evident that the tumour was formed by the successive concretion of a vast number of tubercles. Masses of the same kind, of smaller size, were found occupying the situation of the mesentery, and the duplicatures which attach the different portions of the colon and its sigmoid flexure. There were no particular marks of disease in the liver, except that it was very much reduced in size and condensed in structure, from the pressure of the tumour, by which it had been forced up considerably towards the right side of the chest. The spleen was quite healthy. The stomach and intestinal canal presented no appearance of derangement worthy of remark. A few tubercles were found in the cavity of the thorax."

A chemical examination of the tumours was made by Mr. Upjohn, and it was concluded that they consisted chiefly of gelatine.

X.

MEATH HOSPITAL.

ARTHRITIS AND SCIATICA, TREATED BY ACUPUNCTURATION. (Under the superintendence of Mr. HAMILTON, in Dr. GRAVES' wards.)

Case. PAT. ROSSETER, ætat. 30, labourer, taken into the hospital November 30, 1830; complains of pain on motion, and stiffness of both arms and wrists, not very severe, nor very tender on pressure; also severe pain, on motion, a little behind and above the left hip-joint. He walks lamely and with difficulty, not being able to move the thigh, or put his foot firmly to the ground, without great pain. The knees are slightly stiff and painful. None of these parts are red or swollen, and do not give pain while the man remains at rest. They are not worse at night. He attributes them to cold

caught from exposure while in a profuse sweat, after a hard day's work, six weeks ago. At first a chilliness came on, and continued for a week, when the shoulders and arms became affected, and for a short time the front of the chest very severely. The pains were erratic, but did not attack the hip or knees till ten days since. Since this attack he sweats often and feels chilly. Bowels regular; appetite and sleep good; pulse full and regular; urine clear, and deposits no sediment.

3d.—In addition to his other symptoms a slight attack of pleurodyny.

R. Vinum Sem. Colchici, ʒss.

Magnesia, gr. x.

Gutta Nig. gt. viij.

Aquæ Cinnam. ʒj. M. sumat ter in die.

Hir. vj. lateri; *Acupuncture* at the affected part of left hip.

4th.—The needle was pushed in, with considerable pain to the patient, up to the eye in an obliquely-horizontal direction, a few inches above and behind the trochanter, about where the sciatic nerve leaves the pelvis. It was withdrawn after being in 24 hours. While in, the part felt sore. Though watched some minutes after its insertion, I could not perceive any action to be produced; the patient himself observed, that he felt it moved. He considers that it has done him good, the pain and tenderness being considerably lessened. His chief cause of complaint now is the left wrist, which is stiff and painful; bowels confined; urine high-coloured, but clear.

Rep. Mist. Colch.

He continued on the use of the colch; sulph. mag. being added merely on one occasion to open the bowels.

8th.—All his pains much less; and can walk with comparative ease and very little pain to what he had when he came into the hospital; is desirous of having another needle inserted, having experienced so much benefit from the first.

Cont. Colch.

9th.—Pain in the hip returning; the patient is very anxious to have another needle inserted. His other pains less.

Rep. Acupunct. et Mist. Colch.

11th.—The needle was withdrawn, leaving some degree of soreness; his other pains are so trifling that this is almost his only complaint.

Omit. Colch. et sumat Sulph. Quinina, gr. x.

13th.—Has now no pain any where, and walks extremely well, without the least stiffness or pain.

Although colchicum was taken during the use of the needles, it is evident very little influence can be attributed to this medicine in alleviating the pain in the hip. For though by its means the cure of the other pains was effected, this one, after having been greatly relieved by the first needle, began again to be severe, while the patient was still using colchicum; and a second needle was inserted, at the man's anxious request, with complete relief.

Besides this case, I have seen acupuncture successful in three others: the first, that of Hogan, admitted Sept. 30th, 1830. This man had laboured under inflammation of the anterior crural nerve for two years, and had undergone medical treatment without relief. Four needles were now inserted at intervals; and at the end of a week he was dismissed cured. It is proper to add, that for two days he used Dover's Powder and the warm bath. The second, John Darnford, under Mr. Jone's care, had laboured four months under pain of the hip, with some degree of lameness, and had used blisters and cupping without relief. The second day after admission, two needles having been inserted into the hip, all pain was removed from that part, and he could walk about perfectly well, his only complaint being a pain in the ankle. The last is that of James Toole, in whom one needle removed severe pain in the hip. This patient is under Mr. Bernard's care.

Much talent and ingenuity have been vainly exercised to discover the *modus operandi* of the needle while in the living fibre; any attempt, therefore, on my part, could only end in idle speculation. I trust, however, I shall be excused for venturing to offer a few remarks of a more practical nature; first, on the best manner of insert-

ing the needles; secondly, on the number that should be employed, and the length of time they are to be left in; and thirdly, on those cases of a rheumatic character in which they are likely to be most beneficial.

1st. It may be observed, that of the above four cases, the last two were much the most striking: the cure occupying only two days in the cases of Darnford and Toole. Many reasons might be brought forward as likely to account for this: the circumstances of the cases, &c. I am inclined, however, to attribute the speedy success of the remedy in a great measure to the different manner in which the needles were inserted. In Darnford's case, Dr. Graves desired the direction of the second needle to be less horizontal, and the next day all pain was removed. In Toole's case, the needle used was so long, and the direction such, as to render it probable that the sciatic nerve was pierced (which Cloquet, I understand, for I could not get his book, considers desirable); the relief was even more speedy.

In Dr. Renton's hands, acupuncture has been eminently successful, instantaneous cures having been effected in many cases of long standing and severity, and which had resisted all the other remedies employed. It is difficult to collect from his paper in the *Edinburgh Med. and Surg. Journal* the precise manner in which he performed the operation. The direction of the needle, however, appears to have been perpendicular, or nearly so, as he lays great stress on the piercing of the muscular fibre, and passes the needle, not up to the eye, but only to the depth of an inch, or an inch and a half, which, were the direction nearly horizontal, would scarcely be deep enough to attain his object. This much is certain, that it was done with a gentle rotatory motion, nor was any pain produced by the insertion of so many as ten needles.

Wishing to satisfy myself on this last head—the absence of pain—I inserted a needle into the centre of the calf of my leg, with a rotatory motion firmly pressing on the top, to about the depth of an inch and a half, the direction being exactly perpendicu-

lar. No pain was felt; the only feeling being one of great itching. What is curious is, that the needle, after having been in a minute, moved in a circular direction on its own axis; and a numb aching sensation was experienced. It was only left in a couple of minutes, and then withdrawn with some pain and difficulty, as if it had been firmly grasped by the muscular fibres. The leg was the same after as before, and the place of the puncture discovered with difficulty. Now, as pain has not been proved to be necessary to the efficacy of acupuncture, but will often be a great obstacle to its use in cases where it would be likely to prove a safe, speedy, and efficacious remedy, the insertion of the needle by a rotatory motion—drilling, as it were—being unattended by any pain, must be considered preferable to thrusting it in, a mode which, from Pat. Rosseter's case, we may conceive to be a very painful operation. Dr. Renton's cases, along with the two above-mentioned, would also go far to prove, that the more perpendicular the direction the better, in which case, too, the depth ought to be from an inch to an inch and a half.

With regard to the second point, the number of needles, and the time they are to remain in, there exists great difference of opinion. It is natural to suppose, that if one needle produces any effect, a more powerful one will be produced by many, which is in a great measure confirmed by the great success obtained by Dr. Renton, who used as many as ten in some instances, divided between the hip, thigh, and leg. Dr. Elliotson also uses a considerable number. The former gentleman only allowed them to remain in five or ten minutes; and how he succeeded has been already mentioned. On the other hand, in the Meath, they are left in twenty-four hours; and Dr. Elliotson, in one of his clinical lectures, observes that, 'if needles be merely thrust in, and allowed to remain only a short time, they will in general not be found of much service; they should be left in at least two hours.' It is not easy to reconcile these differences. Most probably more depends

on the manner of performing acupuncture than on any thing else, that the shorter time they are in the benefit should prove to be the greater. If the manner be good, it very likely matters little whether the needles remain in five minutes, or twenty-four hours, as far as the effect is concerned; but it is of great consequence as regards the patient's comfort, who would no doubt sleep better without, than with, nine or ten needles sticking in his body, setting aside the soreness which usually remains after a needle has been in so long. Dr. Elliotson, in spite of having discovered the value of leaving in needles long, appears in some cases to have had more perseverance than success, as he says, 'I once ordered them daily for nine days before I succeeded.' If this and some other cases given by Dr. Elliotson, are compared with Dr. Renton's, it will be apparent that the remedy must have been differently applied. If performed in Dr. Renton's manner—that is, with half the needle out of the flesh, it is plain it would not be convenient to leave them in long; it is fortunate that there is no necessity, five or ten minutes having proved sufficient.

Lastly, Dr. Elliotson, in considering the cases most likely to be benefited by acupuncture, divides rheumatism into that attended with a sense of heat, and aggravated by its application; and that in which there is a feeling of coldness, the pain being relieved by warmth. The first of these he judges not likely to be benefited by the use of needles, but in the latter he thinks they will be found to prove very serviceable. But this distinction does not appear to have been acted on by Dr. Renton, as the case of the young woman given by him proves; nor do I recollect it to have been mentioned by Dr. Graves. It is doubtful, therefore, how far it can be considered of importance; and it would probably be better to give the needles a fair trial in all cases of sciatica.*

* Medical Gazette.

XI.

ILLUSTRATIONS OF SURGICAL ANATOMY, WITH EXPLANATORY REFERENCES; FOUNDED ON THE WORK OF M. BLANDIN. By JOHN G. M. BURT, Surgeon to the City Dispensary, &c. &c. &c. Engraved under the Direction of the Editor, by MESSRS. JAMES and JOHN JOHNSTONE. Edinburgh, Maclachlan and Stewart, 1831.

AMIDST the multitude of anatomical plates of all descriptions which are daily issuing from the press, the student is distracted, and unless his purse be longer than it usually is, he can purchase but a very small proportion of the whole. Some are of a higher character and more general utility than others, and some from good fortune or superior merit, obtain a better name, and, what is more germane to the purpose, a wider circulation. Far be it from us to particularize; suffice it that such is the case. The present work consists of eight fasciculi, each containing two plates. They contain the surgical anatomy of the head and neck, the eye, the upper and lower extremities, and particularly of that chief domain of surgery, the pelvis. They are copper-plate, the drawings accurate, the plates themselves distinct and clear. Our own opinion respecting the value of anatomical plates is on record, and we need not repeat it here, but we may state that the present series are very good of their kind, and calculated, so far as plates can go, to prove of service to the operative surgeon. On these grounds we can recommend it, and to those who do not possess the work of M. Blandin, the present will prove acceptable.

XII.

THE ART OF CUPPING, &c. &c. &c. By GEORGE FREDERICK KNOX, Cupper to the Westminster Hospital, &c. &c. Octavo, pp. 63. London, 1831. Price Three Shillings.

IN this age of books we need not be surprised that cupping has its share. One would imagine that it would be difficult

now-a-days to fill a goodly octavo with a description of the art of cupping and of the matters connected therewith; yet so it is, that Mr. Knox has contrived to execute the task in a very respectable manner. The following quotation will convey an idea of the author's style, and of the description of information to be met with in the volume; this is all that we can afford to do.

"I am in the habit of holding in my hand as many glasses as are necessary for the operation; but three may be held conveniently: the one to be first applied between the index finger and thumb of the left hand, another in the palm of the hand confined by the little finger, the third on the three middle fingers; the torch must of course be held between the fingers and thumb of the right hand. In applying the glasses they should each in turn be held in a slanting direction, very nearly approaching to the perpendicular; the torch should be introduced about two-thirds of its depth, and then quickly, but with an easy, not a jerking motion, withdrawn, and the glass applied. It should be applied, not with a sudden, violent impulse upon the skin, nor with too slow a motion, but suffered to drop, as it were, simultaneously with the withdrawal of the torch; and there is no necessity whatever to press the glass upon the skin; it but adds to the pain, and the mere application of the edges to the surface is sufficient. Perhaps the best plan for a beginner, or a person having little practice, is to let one edge of the glass, always on the upper side, rest upon the skin, whilst the opposite edge is a little elevated to allow of the introduction of the torch, and suffered to fall again as it is withdrawn. It is a common error to allow the torch to continue too long within the glass; its stay should be momentary, as the exhaustion is instantaneous, and if the torch be suffered to remain the light will be extinguished. The glasses, when first applied, should remain on about half a minute, or until the skin assume a reddish purple colour, indicative of the blood being collected on the surface: and here comes the part of the operation requiring most dexterity. The torch should

now be held in the palm of the right hand, and to avoid the liability of its being knocked away by the springing back of the trigger, with the upper portion of the tube pressing against the concavity formed between the fore-finger and thumb, and confined by the little and fourth fingers pressing upon the ring or plate—the scarificator should then be held between the thumb and middle-finger, care being taken not to press too soon upon the button—the fore-finger being at liberty, the nail should be gently introduced between the edge of the glass and the skin, pressing slightly inwards, and the glass gently elevated and taken off in the left hand; the scarificator should then be applied immediately before the subsidence of the tumour, flatly upon its surface; and upon the rapidity with which this is done depends, in great measure, the suffering of the patient; the instrument should then be placed in the palm of the left hand, confined by the little-finger, and the glass re-applied; and thus with each in succession, the glasses being repeated twice or thrice, according to the quantity of blood required, *over the same scarifications*. And here I cannot too strongly condemn the practice, as unnecessary as it is painful, and ghastly in appearance, of making two scarifications intersect each other; indeed, patients once treated in this manner will rarely give an opportunity of being so served a second time."

We recommend the work to those country surgeons who have had few opportunities of seeing the operation performed, and yet wish to become adepts in its arcana.

XIII.

SUCCESSFUL OPERATION FOR ANEURISM OF THE POSTERIOR AURAL ARTERY.*

"HESTER CHAMBERS, aged thirty-four years, was admitted into the General Hos-

* Mr. Fletcher's Med. and Chirurg. Illustrations.

pital here, on account of an ulceration behind the left ear, attended with a most excruciating pain of the head, and the left side of the throat and neck; likewise with very great pain in swallowing. These pains had much of the neuralgic character, followed the course of the nerves, were periodical in violence, though seldom entirely absent.

There was a small tumour, apparently of the skin, about the size of half a very large nutmeg, seated an inch and a half obliquely above the mastoid process on the affected side, the projecting surface of which was ulcerated, and the ulceration extended a little farther than its basis; it had been of near seven years standing, and was accustomed now and then to bleed freely from its surface, and once it discharged, she said, nearly half a pint of blood. For three months before her admission to the Hospital it had not bled; and since the bleeding had ceased, the pains of the head and neck had come on, which at first were confined to one side of the head only, but afterwards were extended very generally over its surface.

Medicines, bleeding, both topical and general, blisters, &c., had been tried for her relief, with little or no benefit. The ulceration of the tumour and integument were healed, but the pain nevertheless continued, or even increased in violence. She had applied to several practitioners, and had been told her complaint was a cancer.

Upon examining the neighbourhood of the little tumour behind the ear very minutely, a small oblong and soft swelling was observed, which was continued from the base of the tumour, and which distinctly pulsated. After repeated examinations it was clear that there was an aneurism, or dilatation of a small branch of the occipital artery which runs up behind the ear; and though it was not so clear how this should occasion the woman's sufferings, yet it was obvious that the tumour and the pains were connected, and it was, therefore, resolved to tie up the dilated artery. By making one pressure at the lower edge of the mastoid process, and another about an inch and

a half higher up on the scalp, the woman's sufferings were instantly suspended. The artery was laid bare between these two points, and at each of them a ligature was passed underneath it,—the needle carried close to the bone, and a strong ligature made. The artery cut into was found to be dilated to the size of a goose-quill, as it quitted the tumour. The woman instantly lost all her pain, and could immediately swallow with ease.

About a month after the operation she was discharged, perfectly well."

Thirteen months afterwards this patient returned, having suffered for the last ten weeks from a violent pain in the same side of the head, extending from the site of the former incision upwards towards the vertex. No enlargement of any vessel could be discovered, but pressure applied a little above the seat of the pain immediately suspended it. Across this part there was made an incision two or three inches in length, continued through part of the fascia of the temporal muscle. The pain instantaneously left her, but in the evening she became affected with severe head-ach, and was extremely giddy and thirsty. Deafness, in some degree, succeeded, with various nervous symptoms, and, though the pain in the site of the incision was lost, it returned in the spot where the first operation had been performed. The pulse was always frequent, sometimes small, no treatment was of service, and the patient was recommended to leave the house. At length she begged that some operation might be performed, and one of a rather extraordinary character was adopted. An incision was made, a portion of the scalp and pericranium half an inch or an inch in breadth removed from the mastoid process upwards, for a space of three inches, and the cranium bored with a trepan as far as the diploë. The former pain left her immediately, but in the evening noises in the head, giddiness &c. occurred, and before the wound was healed, violent pain was complained of in a line close to the posterior and inferior boundary of the mastoid process. Here a deep incision was made, and some of the fibres of

the trapezius cut. The pain instantly ceased and in less than a month the patient was discharged well, and she still remains so, although there is no sensibility in the greater part of the scalp on the affected side of the head.

This is one of those extraordinary cases to which one scarcely knows what to say. The end may be considered as consecrating the means, success as stamping the character of the treatment. Suppose, however, that from such an operation as was here attempted, matter were to form upon the dura mater and occasion the patient's death, what would the opinion of the world be then? And suppose that this operation, severe as it was, and fraught with danger as it might have been, had proved unsuccessful and inoperative;—what might be the criticisms of the harsh and the illiberal? Mr. Brodie mentions a case in which a surgeon performed some such operation on the scalp for a similar disease; the patient died in consequence of the formation of matter on the dura mater and secondary depositories. Another consideration is this, that nervous pains do occasionally subside without the assistance of art, certainly without that of surgery, and not infrequently resist the most scientific as well as the most severe operations.

Looking at the present case from every point of view, and impartially considering the practice, we cannot avow that we think it safe, or that we should feel inclined to adopt it. Still this must be looked on as merely an opinion, and Mr. Fletcher has on his side of the question, an argument of no mean value, the fortunate issue of the experiment.

XIV.

CHRONIC ABSCESS OF THE CHEEK, FROM THE IRRITATION OF A CARIOUS TOOTH.*

The swelling from this cause, which often

* Mr. Fletcher's *Medico-Chirurgical Illustrations*.

simulates a distinct tumour, is of a pale and purplish tint, little elevated, giving something of the appearance of a strumous abscess, though it feels firmer, and the skin looks thicker. Mr. Fletcher has known this swelling cut out from the cheek as a tumour otherwise irremovable; he has also known it opened, treated with caustic, and in fact in all sorts of ways but the right. On removing the carious tooth, with its fang or fangs, the cause of the disease, the tumour gradually disappears without further treatment. On opening the tumour we find a small quantity of unhealthy pus, mixed sometimes with a slight fungous growth, and the fangs of the tooth will have attached to them a small fungous growth of similar character. Mr. F. has never seen this chronic tumour opposite to any other teeth than the first molars of the lower jaw. The history of the disease appears to be this. The carious fang excites some inflammation in the socket, which generally suppurates, when the pressure of the matter induces the ulcerative process outwardly, for its escape. During this process the contiguous portion of the cheek sympathises slowly with the irritation, inflames and gives rise to the chronic abscess in question. The effect on the cheek may take place from the irritation of the diseased tooth, before the inflammation in the socket has advanced to suppuration; or this last may not even happen at all.

XV.

ON THE INDICATIONS OF THE PULSE. By Dr. BURNE.

IN our contemporary of the Midland counties, for May last, Dr. Burne of Spring Gardens, has published some physiological observations on the motions and structure of the heart, which had been read at the Physical Society of Guy's Hospital, three years ago, and now sent forth on account of the discussions which are afloat respecting the motions and sounds of the heart.

We apprehend that these discussions have led to no conclusive result, much less to any useful purpose. We shall therefore pass over the physiological portion of this paper, and give our readers the practical part with which the communication winds up.

INDICATIONS OF THE PULSE.

"The character of the pulse depends on three circumstances, namely, the volume of blood sent forth by the left ventricle at each contraction of the heart; the force with which that blood is propelled; and the degree of tonicity of the artery. These causes, together with the frequency of the heart's action, give rise to all the varieties of the pulse. The character of the pulse is, moreover, modified by the state of the skin, according as its temperature is high or low, or as it is dry and contracted, or relaxed and perspirable.

The volume of blood sent forth by the ventricle at each contraction, is necessarily regulated by many circumstances: as by the supply of blood which that ventricle receives, and by the area of the mouth of the aorta, &c. The supply of blood may be abundant, from a general fulness of the system, and activity of the circulation; or scanty, from an opposite state of things. The supply may also be deficient, from a diseased condition of the lungs opposing the transmission of blood from the right to the left side of the heart, or from a narrowing of the auriculo-ventricular opening. The area of the mouth of the aorta may be diminished by disease of its valves, or increased by dilatation. All these different circumstances influence the character of the pulse, and the pulse, therefore, becomes an indicative sign.

Notwithstanding the pulse is mainly produced by the action of the heart, it does not always correspond with that action. The action of the heart will sometimes be impetuous and strong, while the pulse is small and weak; as in a narrowing of the orifice of the mitral valve from cartilaginous or osseous deposit.

The various characters of the pulse may be represented by the following designa-

tions. It may be strong, weak, hard, soft, wiry, sharp, harsh, grating, jarring, vibrating, falling back, fleeting; or full, large, small, thready; or yielding, open, contracted, tight; or rapid, frequent, accelerated, slow; or it may be quick, free, equal, unequal, regular, irregular, hesitating, labouring, intermittent, fluttering.

Each of these terms designates some notable peculiarity of the pulse; and as they are numerous, and as most of them cannot be measured except by the sensation produced in the mind, it follows that the accuracy of this measurement must depend on the skill of individuals, and hence the difficulty of an acquaintance with the science of the pulse. But although the task is difficult, it may be accomplished by diligence and perseverance. The ready use of the stethoscope, requires the ear to be educated; and an education of the touch is necessary to a correct judgment of the pulse.

If time can be profitably spent in acquiring a knowledge of mediate auscultation, much more may it be so spent in acquiring a knowledge of the pulse; because the pulse is one of the most prominent signs in disease, and one of the most certain indications in the treatment. Without the assistance of the pulse, we cannot advantageously, or even safely, employ blood-letting, which is the most powerful of all our remedial agents, the most beneficial when judiciously prescribed, the most fatal when prescribed in error.

The characters of the pulse are produced by three causes; the heart, the volume of blood, and the artery; and as these causes always operate, it follows that every given pulse must have several characters. Thus, the same pulse may be strong, full, and firm; the strength resulting from the heart, the fulness from the volume of blood, and the firmness from the tonicity of the artery.

Of the terms already specified, some belong to the heart, some to the volume of blood, some to the artery, and some to these causes combined.

Those which depend upon the heart, are *strong, weak, sharp, jarring, rapid, frequent or accelerated, unfrequent, quick, slow, equal,*

unequal, regular, irregular, hesitating, labouring, intermittent, fluttering.

Those which depend upon the volume of blood, are *full* and *small*.

Those which depend upon the artery, are, *contracted, tight, yielding, open, harsh, grating.*

Those which depend upon the above causes combined, are *hard, soft, wiry, vibrating, falling back, fleeting, thready, large, compressible.*

The pulse, in health, beats about 72 strokes in the minute, or thereabout, and the number varies a little in the course of the day and night, being rather more than 72 in the evening, and less than 72 before rising in the morning. Its natural character is *equal, regular, soft*, and of *moderate strength and volume.*

In the deviations from health, the pulse varies in character according as the nervous or sanguiferous systems are prominently affected, or as both are affected simultaneously; and it is this difference which gives rise to that peculiarity of pulse, which surgeons meet with so frequently after the shock of an accident or operation, and which is known by the term *irritable pulse*, or *pulse of irritation*. This pulse derives its peculiarity from the excitement of the nervous system; and its character may be described as follows: it is frequent, the stroke is quick, short, rather sharp, but not strong, the impression on the finger being rather smart but not lasting. Its volume may be small or otherwise, but is never full.

There are many diseases and conditions of the body which are accompanied by a particular kind of pulse, and in some of which the peculiar pulse is in part diagnostic. As, for example, the pulse accompanying pneumonia, pleurisy, apoplexy, and depression of the skull from fracture; concussion of the brain, adhesion of the pericardium, valvular disease of the heart, and that succeeding sudden hæmorrhage, and therefore called the hæmorrhagic pulse. This last is of so much importance, as to deserve our best attention: for the efforts of the heart to keep up the circulation, after

sudden and copious hæmorrhage, give a character to the pulse, which is apt to be regarded as indicative of increased power, and so to lead to error in practice.

The hæmorrhagic pulse is frequent and open, and the stroke is quick and rather smart, but short and falling back, and leaves but a slight impression on the finger. This open character is sometimes mistaken for a full pulse, and the quick and rather smart stroke construed into strength, which may tempt a practitioner to abstract blood, while the symptoms are already produced by the loss of blood: but the slight impression upon the finger, and the sensation of falling back after every stroke, will at once determine that there is a deficiency of strength and volume of blood.

The pulse of an intense pneumonia, is the best example which can be furnished of a full pulse, the very nature of the disease causing, in the early stage, a very abundant supply of blood to the left ventricle.

Pleurisy offers an example of a firm pulse; so also do some cases of concussion of the brain, during the succeeding inflammatory stage.

The adhesion of the pericardium is attended with so peculiar a pulse, as to be a diagnostic sign. It is generally said that there are no signs by which the adhesion of the pericardium can be detected; and this is true to a certain extent. It is true, for instance, where the adhesion is by the medium of a rare and loose cellular tissue which allows the free motion of the heart; then there are no signs, because the action of this organ is not interfered with; but where the adhesion is firm and close, it so impedes the action of the heart, as to give a decided character to the pulse. The pulse, under these circumstances, is frequent; the stroke is unpleasantly sharp; is quick and strong more or less, and more or less full.

In ascertaining the nature of the pulse, we must be circumspect, and take care that we are not led into error by any accident or idiosyncrasy: for instance, any inflammation of the finger, or rheumatism of the wrist, will affect the pulse of the affected arm; or

if one arm has been lying out of bed, while the other has been covered, the pulse in the two arms will differ exceedingly; or there may be a naturally vigorous stroke of the heart, which is usually attended with a thick strong artery, and so on.

The characters of the pulse which I have attempted to draw, will, I am afraid, be regarded by some as unnecessarily minute; and they may appear difficult to become acquainted with; but they will easily be made familiar by patience and industry; and the satisfactory, and, I may add, practical information, which I have gleaned, in proportion as I have devoted time and attention to the contemplation of the characters of the pulse, urge me to recommend the study of its indications, as leading to the acquisition of valuable knowledge."

XVI.

ON THE CAUSE OF DEATH IN MEMBRANOUS INFLAMMATION. By M. BROUSSAIS.

THE following are the conclusions to which the eccentric, but talented, Professor of Val de Grace has come to on the above topic.

1. The membranous phlegmasiæ, more especially those of the abdomen, particularly gastritis and enteritis, frequently determine, even at their commencement, congestion in the brain and spinal marrow, sufficient to destroy life, if proper means be not promptly employed. This congestion often, as, for example, in infants, becomes the principal disease.

2. During the course of these inflammations, there exists *always* a sympathetic irritation of the brain and spinal marrow, which more or less accelerates the circulation and respiration, disturbs the sensorial functions, perverts the sensations, renders the voluntary muscles unfit for their offices, and, in a word, occasions all those nervous symptoms which we see in this class of diseases, even when they are most mild.

3. When these phlegmasiæ have profoundly altered the mucous membranes, and

menace a fatal termination, very severe nervous symptoms are developed, such as delirium and convulsions, when the membranes of the brain are the chief seat of the sympathetic irritation—or coma, when the central parts of the cerebral mass are affected, and exhalation takes place into the cavities of the brain.

4. It is this irritation which always leaves traces of inflammatory action, that terminates life, *by functional disturbance*, whenever death occurs before encephalic effusion, hæmorrhage, or organic change in the great vital organs. It may be asserted that peritonitis, even when there is perforation of the gut, does not, in itself, occasion death, but only through the constitutional disturbance of the brain and nervous system, as before stated.

5. Finally, M. Broussais concludes that those alterations of structure which we see in acute diseases, hitherto called idiopathic fevers, are the effects of inflammation—and if, in certain parts of the said membrane, there be appearances of paleness, or even atrophy, these he attributes to the afflux of blood to various other parts of the body in articulo mortis, or during the last day or two of life.—*Annales de la Médecine*.

XVII.

ON SPINNERS' PHTHISIS. By Dr. KAY, of Manchester.

Dr. KAY has written a long and important article "on molecular irritation of the lungs, as one cause of tubercular consumption," in the third Number of the North of England Journal, from which we shall make a few extracts. A considerable portion of it is occupied with observations and criticisms on the writings of Velpeau, Broussais, Alison, Andral, Baron, and others; together with personal experiments on the introduction of mercury into the lungs—experiments quoted in Dr. Alison's work, they having been made while Dr. Kay was an "interne" in the Royal Infirmary of Edinburgh. But these critiques

and experiments we must pass over, in order to come at once to the principal and practical part of the communication.

The situation of the Ardwick Dispensary, in the centre of a dense mass of cotton-spinners, has afforded our author ample opportunities for observing the pulmonary irritation, and its consequences, produced by an atmosphere loaded with particles of cotton, &c.

"The dust and filaments which are necessarily inhaled in these occupations, occasion considerable pulmonary irritation. In this example, as in others, however, is displayed that peculiar law of structure, by which it insensibly undergoes changes which enable it to endure the presence of a foreign or noxious substance, without suffering the ordinary functional derangement; and a great proportion of the operatives engaged in cotton spinning suffer little, if at all, from the foreign particles which they inspire during twelve hours in the day. The diseases which arise from the circumstances we have described, are chronic and sub-acute bronchitis—a state of the pulmonary structure in which the signs of inflammatory action are less evident, but in which the chief symptoms indicate a great irritability of the lungs; and these complaints *occasionally* terminate in phthisis.

A chronic inflammation of the mucous membrane of the bronchi is a common disease amongst those employed in the most dusty rooms of cotton mills. The patients cough and expectorate frequently through the day, whilst engaged in their employment, and especially on awakening in the morning; their respiration is oppressed by inconsiderable exertion; the voice becomes hoarse and harsh; and their strength and health are gradually impaired. Appetite fails, and the digestive function becomes disordered, and, on slight exposure to cold, their symptoms are aggravated, or acute bronchitis occurs, which obliges them to seek medical aid. These cases are often prolonged, and pass through stages of suffering and emaciation which reduce the patient's health to the lowest ebb."

The cough becoming gradually more and

more harassing, the patient applies for medical assistance. There is sometimes expectoration, but the cough is often dry and short, with a diffused and obscure sensation of uneasiness beneath the sternum. On sudden exertion a pectoral oppression ensues, apparently arising from inability to dilate the chest fully in ordinary inspirations. There is little febrile action. On the application of the stethoscope, there is no rôle to be heard—and the respiratory murmur is scarcely puerile. Acute bronchitis is easily kindled up by the ordinary causes.

"In families in which consumption has appeared to be hereditary, inasmuch as several of their members have, in succession, become the victims of this insidious disease, I have observed that it has, in the higher ranks also, sometimes been preceded by a state of the pulmonary structure resembling that which I have described, but whose origin could be attributed to no apparent external cause. Conceiving it important to recognize this state early, in order that its progress may be arrested ere fatal mischief has occurred, I shall attempt to delineate the general features of some cases which I have minutely watched, and to which the practice of most will soon furnish them with a parallel.

In families which exhibit distinct evidences of scrofula, one or more of the members not rarely become the victims of tubercular consumption. Shortly after such a catastrophe, the apprehensions of the survivors are awakened to a jealous anxiety concerning the slightest symptom of indisposition, as they frequently experience a gloomy presentiment that they shall perish by the same fate. A slight cough excites more than ordinary alarm, and the physician is summoned to witness symptoms which might otherwise have been overlooked and neglected. In such constitutions, Phthisis frequently commences most insidiously. The patients are disturbed by a peculiar, short, irritable cough, which is excited by speaking and by slight exertion, but is at first accompanied with little or no disturbance of the respiratory

function, and with no expectoration. The health slowly declines; the patient becomes weaker, and gradually more indisposed to exercise, and the pulse is occasionally rapid. After some time, febrile paroxysms may endanger, but are seldom sudden in their accession, or well marked in their progress; though, at their height, the pulse is frequent and sharp. The disease may be fatal, and little or no expectoration occur. In this state, the practitioner may be exceedingly perplexed in forming his diagnosis. The stethoscopic signs often remove all doubt concerning the nature of the disease. The existence of a general harsh, puerile respiration is the most common sign; but sometimes bronchophony, accompanied by bronchial respiration, and a dull sound on percussion, is discovered beneath the clavicles; or a very slight and distant intercurrent crepitous râle may be distinguished, in exceedingly limited portions of the pulmonary structure. This last sign, combined with a distinct and general puerile respiration, may be accepted as very strong evidence in favour of the existence of milary tubercles.

A year may elapse, the symptoms continuing unchanged, or greater constitutional irritation may have supervened; with more frequent febrile paroxysms, and a more constant rapidity of the pulse—but these signs are often absent. The patient may in this way gradually become emaciated, and, in the last stages, only, may hectic, copious expectoration, or colliquative diarrhœa occur. At other times, acute bronchitis is suddenly developed, without any evident external cause. The pulse is rapid, full and harsh—the skin hot—the breathing much disturbed—the expectoration copious, and resembling that of ordinary inflammation of the bronchi. The puerile respiration may be obscured by the sonorous mucous rales which pervade the lungs. The chief signs which enable the intelligent practitioner to distinguish this disease from ordinary inflammation of the bronchi, are, that it baffles all the ordinary remedies. Though antiphlogistic means are freely employed, the pulse maintains its frequency, sharpness, and ir-

ritability; and blisters and medicinal agents seem to have no influence over the progress of the complaint. It often terminates fatally, in three weeks or a month after the symptoms indicating acute disease appear, or the tubercles soften, and caverns are discovered beneath the clavicles in an exceedingly short space of time.

In these cases, distinct evidence may sometimes be obtained of the existence of extensive tubercular deposition, before the accession of acute symptoms. The patient may even expire without any symptoms excepting a short dry cough, and general constitutional irritation; and when the tubercles excite bronchitis, it evidently arises from some internal cause, and occasions such rapid maturation and softening of the tubercular deposition as to prove speedily fatal. The previous cough must be accepted as evidence of serious pulmonary changes, and of a consequent irritability of the lungs, which deserves watchful scrutiny and careful treatment.

The chronic bronchitis which the spinners suffer, occasionally, though not frequently, terminates in phthisis. I have however, seen well marked examples of tubercular consumption thus induced, but have been unable to detect any peculiarity in its features, by which it may be distinguished from some of those Protean forms of this malady, which occur when it arises from other causes. My able colleague Dr. Phillips has been inclined to think that sudden inflammation and the consequent abrupt termination of the disease, whilst the milary tubercles are scattered in an unaggregated and unsoftened state through the structure of the lungs, is more frequent in spinners' than in ordinary phthisis. My own observations, on the contrary, have afforded no example in support of this opinion. The number of the cases which I have witnessed, though sufficient to establish the source in which the disease originated, has not, however, been so extended as to enable me to draw conclusions concerning its progress, from a wide comparison of individual examples."

Our author observes that, although scrof-

ula is a powerful predisposing cause, it is by no means essential to the production of phthisis. He thinks that local irritation long kept up will induce the disease in the soundest constitution. That peculiar cachexia which is induced by protracted labour, in unhealthy occupations in large cities—imperfect nutrition—dissolute habits—and mental anxiety, is apt to lead to bronchitis—and ultimately to tubercular consumption.

“The spinner’s phthisis is, I conceive, seldom or never produced by the impactions of foreign molecules in the pulmonary tissue, but is a consequence of the morbid actions induced by their constant contact with the mucous membrane. The particles and filaments, with which the air is clouded, are inhaled; they irritate the bronchi, and occasion chronic inflammation, or they excite, in certain constitutions, other and more obscure trains of unhealthy vascular motions, which sometimes terminate in the secretion of miliary tubercles. These affections seldom or never in their origin assume an acute form; they occur chiefly in constitutions weakened by general depressing causes, but an hereditary scrophulous taint does not seem to be necessary to their production. Irritation, when intense and long continued, will triumph over the energies of the most florid health; but all those agents which depress the vigour of the vital powers tend to modify those vascular actions which are excited by local irritation, in such a manner, as to occasion the secretion of tubercles.”

Dr. Kay promises to recur to this important investigation at some future time and we hope he will keep his promise.

XVIII.

OBSERVATIONS ON HOOPING-COUGH. By M. BLAND, Physician-in-Chief to the Hospital Beaucaire.

DURING a severe epidemic hooping-cough in France, the author of this paper suffered an attack of the disease, and was naturally

enough led to examine into its nature, causes, and treatment, with more critical scrutiny than a non-professional patient or observer.

The author makes some pertinent observations on the peculiarity of the cough, the sickness, and the cerebral congestion, which we see in pertussis. The cough is remarkable for the number of short and interrupted expirations which succeed to a long and sonorous inspiration. These expirations, which amount to eight or ten in infancy, diminish according to age; and in the adult, seldom exceed two, three, or four. In the latter cases, too, the inspirations lose a great deal of their sonoriety—circumstances which prove that this symptom and the number of successive expirations, form not the essential characters of hooping-cough. The cough is provoked by a sense of titillation or pricking, more or less sharp, in the place where the trachea divides into the bronchia—the real seat of the disease, according to M. Bland. This titillation is sometimes slow, sometimes rapid. In the former case, the patient has a presentiment of the paroxysm, in the shape of inquietude, even some fear—and an eagerness to secure some position that may enable him to breathe more freely during the attack, or rather to expel, with more facility, the expectoration. In the second case, the titillation comes on instantaneously, and there is little or no premonitory sensation. In both cases the inspiratory muscles, as well as those of the larynx, are thrown into a kind of convulsive action; hence the profound inspiration to fill every air-cell, and the violent efforts to expel the secreted humour from the lungs. The expectoration, however, is rarely so great in quantity as in cases of common catarrh. When the irritating fluid is not completely expelled by the paroxysm, the titillation continues after the fit; and another attack is soon to be expected. These paroxysms are more frequent after taking food, probably by a propagation of excitement from the gastric to the bronchial mucous membrane. In the course of a few days after the commencement of the cough, and du-

ring the whole of its progress, there is felt, at every considerable exertion of the breathing, as, for example, during sneezing or the paroxysm itself, a pain, more or less acute, in the line of the attachments of the diaphragm, resulting, no doubt, from the convulsive action of that muscle in each attack. When the expectorated matter reaches the mouth, it tastes like hydro-chlorate of soda, and seems to excite an inordinate quantity of saliva from the glands of the mouth and fauces. This secretion is so copious and acrid as apparently to excite the vomiting which so often occurs in hooping-cough. This vomiting is much less in adults than in young persons, probably from the sympathy between the two sets of membranes being less acute in the one than in the other.

Our author is of opinion that the symptoms of cerebral turgescence, or even congestion, which are experienced during the paroxysms of hooping-cough, and for some time afterwards, are occasioned by what he terms "the mechanism of the cough," (*dépend du mécanisme du toux*)—namely, on the afflux of arterial blood to the brain, and the retardation of the venous current from that organ, by the cough and by the pulmonary congestion. The cephalalgia, experienced chiefly in the temples, and the tremor of the upper extremities, are the results of this mechanical turgescence in the cerebral vessels. After the paroxysm, in ordinary circumstances, all the functions come back to their common level of tranquillity.

Nature of Hooping-Cough. This has been looked upon by some as a catarrhal affection complicated with spasm—by others, as a cough purely and essentially spasmodic—while some have placed the seat of pertussis in the head, the stomach, the liver, &c. M. Bland confesses that he himself has failed to ascertain the true nature of the disease. He thinks, however, that we may fairly assume that it consists in a morbid secretion of the bronchial mucus—a specific secretion, *sui generis*—saturated, in some way or other, with hydro-chlorate of soda, the irri-

tation of which excites the paroxysms of coughing. The author's own personal observations, and the statements of others capable of analyzing and appreciating their own sensations, confirm this supposition. He thinks this view of the disease is supported by analogy. Thus various secretions, as the tears, the bile, &c. sometimes become so acrid and vitiated as to excoriate the parts with which they come in contact. He remarks that this peculiar secretion is clear and almost transparent throughout the whole course of the disease, and never takes on the muco-purulent appearance of common catarrhal inflammation. He concludes, therefore, that it is irritation, not inflammation of mucous membrane that we have to deal with. This peculiar and morbid humour, he thinks, is secreted more copiously in the night than in the day—hence the paroxysms are more frequent and violent in the former portion of the 24 hours. When the affection is largely extended throughout the bronchial ramifications, and very intense at the same time, the patient dies of suffocation during the prolonged paroxysms—or in consequence of the cerebral congestion resulting from the violence of the disease.

Our author then asks, what is the cause of this peculiar and acrid secretion in the mucous glands and follicles of the bronchia? Does it arise from atmospheric vicissitudes, or from a peculiar principle floating in the atmosphere? These questions, he confesses, we are unable at present to answer. We think there can be little hesitation in denying that mere atmospherical vicissitudes are the primary cause of hooping-cough. We might just as well conclude that small-pox was the result of aerial transitions.

"However that may be, (says our author,) the treatment which is most rational, which is most safe, is that which brings back the bronchial secretion to a healthy state—but as that treatment is yet unknown, we have a key to the numerous specifics which are cried up as infallible in this disease."

He considers it as proved, however, that belladonna, in powder or extract, exercises

a beneficial influence on whooping-cough; but he thinks that a still more powerful agent in mitigating the disease is to be found in the sulphuret of potash; of the efficacy of which he narrates some cases as proofs. We shall glance at some of these.

Case 1. G. Pongé, aged 21 years, and affected with whooping-cough for about three weeks, entered the hospital BEAUCAIRE on the 18th January, 1831, for the treatment of the complaint. The paroxysms were violent, and frequent, especially at night. The expectoration had a saline taste. He was ordered a grain of the extract of belladonna four times a day. (Surely this must be a mistake; or else the medicine must be very different in strength on the Continent and here.)

During the first ten days there was no sensible alteration. On the 29th of January, ten grains of the sulphuret of potash in honey were given, night and morning. Even in the first 24 hours the paroxysms were mitigated. The medicine was continued. On the 31st the cough is merely catarrhal, and the expectoration is no longer saltish. On the 2d of February the whooping was at an end, and the medicines were discontinued.

Case 2. Joseph Pongé, brother of the former, aged 23 years, entered the hospital on the same day as the other patient, 18th January. He had only been four days ill with whooping-cough. The paroxysms were still more violent than those of the brother, producing a considerable cephalic congestion, requiring bleeding from the arm. The belladonna was prescribed, as for the other patient, but no evident amelioration was perceptible. On the 29th January, ten grains of the sulphuret were ordered night and morning. The night was more quiet than usual. 30th and 31st. The same medicine. He had only one paroxysm in the night. The expectoration was less saline. On the 2d of February, he was discharged cured.

Case 3. This was a young man, 20 years of age, who entered the hospital on the 20th

January, having been sixty days ill with whooping-cough. His face was bloated, and the vessels injected by the paroxysms of coughing, which were violent and frequent. The expectoration was very saline and acrid. The extract of belladonna was given him, as in the former case, with very little advantage. On the 29th January, ten grains of the sulphuret of potash were ordered twice a day. This was continued on the 30th, 31st, and till the 2d of February, when the patient was only affected with simple catarrhal cough, and was discharged cured.

"We see, says the author, in the three foregoing cases, with what promptitude the sulphuret of potash modified the morbid secretion, which constitutes whooping-cough—changed it into simple mucus—and thus stopped the paroxysms of cough which this morbid fluid excited."

Although this is no new remedy, and we are far from being so sanguine as M. Bland as to its efficacy, we have thought it proper to lay the facts before our readers, such as we found them.—REVUE MEDICALE.

XIX.

CASE OF AXILLARY ANEURISM SUCCESSFULLY TREATED BY TYING THE SUBCLAVIAN ARTERY. By CHARLES MAYO, Esq. Surgeon to the County-Hospital in Winchester.

[Med. Chir. Trans.]

TEN years ago Mr. Mayo gave some account of a similar disease unsuccessfully treated by the same means. It is consolatory that he is now able to present to the public a more fortunate issue.

Case. On the 19th March, 1831, W. Matthews, aged 49, applied to Mr. M. respecting a painful affection of the right breast, of about a month's duration. On examination, a tumour was seen beneath the left clavicle, and soon ascertained to be

aneurismal, and of the subclavian artery, at the point where it assumes the name of axillary. He was bled to 20 ounces, and took antimony and digitalis. No particular relief was obtained, and, on the 24th of the same month, he was taken into the Winchester Hospital. A consultation decided on the necessity of an operation, and the following is the account of its execution.

"March 26th. At ten this morning, with the assistance of my colleagues, I proceeded to the operation, and drawing down the skin of the neck, I made an incision about three inches and a half in length on the surface of the left clavicle, extending from the insertion of the sterno-cleido mastoideus muscle to the clavicular portion of the trapezius; by this the platysma myoides was exposed, which as well as the subjacent fascia I carefully divided, for upon the latter many branches of the external jugular vein were found, several of which I was obliged to divide in the progress of my dissection through the cellular substance, and secure them with ligatures. I traced the edge of the omohyoideus muscle, traversing, the upper part of the wound, and directly below it I could place my finger on the artery as it passed over the first rib, which seemed to be about an inch and a half or two inches from the surface; to this point I directed all my attention, and endeavoured to clear my way to the artery by cautious touches with the edge of the scalpel, and by tearing the cellular substance with its handle and with a director, till at length I was able to get my nail upon the rib and then under the artery, so that after various efforts I passed a common blunt aneurismal needle under it, armed with a strong round ligature, and having ascertained that nothing else but the artery was included in the ligature, I tied it with a double knot, drawing each knot tight with the iron rings invented by the late Mr. Ramsden. The subclavian vein appeared just within and below the superior border of the clavicle, but formed no impediment to the operation; the branches of the external jugular, however, were very annoying, and kept the wound continually filled with blood, and the apprehension of

wounding larger branches limited the extent of the internal wound to two inches at most. He bore the operation with great courage, though with some impatience, as it occupied rather more than twenty minutes; the pulsation ceased, and the pains in the shoulder were much relieved. In the evening he felt his neck very stiff and sore, and was harassed with a short cough which shook him, without enabling him to expectorate. He took tea and gruel, and had an opiate at bed time.

27th. Had passed a tolerable night, but was sick and faint this morning, which may be attributed to the opiate; took Pil. Cambog. C. gr. v. which moved his bowels two or three times. Pulse eighty-four; left hand and arm quite warm, but feeling heavy, and no pulse at the wrist; wound easy, tumour greatly subsided. Being feverish and worried with cough at night, I took f ʒviii. of blood from the arm, which was slightly buffed."

We shall pass over the diurnal details. We find the patient, on the 10th of May, discharged cured. The wound was completely cicatrized—the tumour had disappeared, and the arm was recovering strength. The pulse was not perceptible at the wrist.

We congratulate Mr. Mayo on the result of a difficult operation and a dangerous disease.

XX.

ON THE PROLAPSUS ANI IN GROWN PERSONS.*

THIS, as Mr. Fletcher well remarks, is a disease on which less has been written than might have been written, and much less is known than ought to be known. To supply the former deficiency, and the latter desideratum is the object of his chapter on the subject. We need scarcely inform our readers that Mr. Hay and Mr. Copland

* Medico-Chirurgical Illustrations, &c.

have severally proposed and performed operations for the prolapsus ani. That of the former consisted in the removal, by a circular incision, of the pendulous flap and other protuberances surrounding the anus; that of the latter, in pinching up a fold of the lining membrane of the rectum within the gut, and tying a ligature around it sufficiently tight to procure its sloughing. From this procedure there is a risk of inflammation of the gut, independent of which Mr. Fletcher understands that the return of the complaint after its performance is a frequent occurrence. The external, or Mr. Hey's operation, is occasionally, but very rarely followed by hæmorrhage. In fifty cases Mr. Fletcher has seen this occur once.

"Mr. Hey, and others too, who operated exactly after his manner, had occasionally inflammatory symptoms succeed the operation. This must have been the effect of cutting away without scruple, and often deeply and roughly, the little blue tumors at the verge of the anus, many of which were formed by the extremity of the anus itself. There is no occasion for this to be done; the gut ought not to be unnecessarily cut, and in this point Mr. Hey's operation may be improved. A deliberate dissection will always be capable of separating the loose skin which you require for excision, from the bowel itself, which should be tenderly and carefully returned. Out of the fifty cases in which I have operated, I have not seen one where the operation was followed by inflammatory symptoms, nor (with one exception), where it did not succeed in entirely curing the prolapsus."

To illustrate his opinions and exemplify his practice, Mr. Fletcher relates the particulars of eight cases. We will select the most important.

CASE 1.—*Prolapsus Ani in its simplest form.* "A gentleman, about fifty years of age, when taking exercise in walking, would have the bowel descend to the extent of two or three inches beyond the verge of the anus, and also after a stool. Some bleeding would then take place from its surface,

the effects of the squeezing of the sphincters. The pain on these occasions was so intolerably severe, as to oblige him, even in the field, to lie down instantly upon his back, and reduce the protrusion, which he could always effect, by gentle pressure. The repetition of his sufferings in this way, for years, at last led him to his surgeon. By straining, as at stool, at my request, the gut was brought into view, in folds, forming a tumour about the size of a small lemon, surrounded at its base by several loose projections of purple-looking integuments, which the gut, in its descent, had brought more completely into view than it could have been before such descent took place. He was now in dreadful pain; the bowel was of a dark red, or purple tone of colour, from the pressure of the surrounding sphincter. From this circumstance, together with the fact, that the bowel never descended on rising out of bed in the morning, and only after much straining at the water closet, or in walking exercise, I suspected that this muscle was still strong, but not sufficiently so to prevent the gut passing through it.

On reducing the prolapsed part, this was found to be the case. The sphincter, irritated by the protruded part, which had just re-ascended, still acted sharply upon my fingers, now engaged in an examination of the interior of the gut."

An operation was proposed and assented to. The patient leaned with his belly over the edge of a high table. The gut was now brought down by straining, with the folds of loose skin more apparent. It was replaced sufficiently to keep it clear of the knife, and a full-sized rectumbougie passed a little way into its canal, but not so far as to carry back the folds of loose skin at all out of the view of the operator. The bougie of a full size is useful on this occasion, for as the patient should have to bear down, to bring the whole of the loose skin outside the anus, the gut would descend at the same moment, were it not for the instrument. I selected five of these portions of integument, passing a thread through each, and drawing

these in succession with some force along the bougie which kept the gut back, they were excised very close to the plane of the surrounding parts. The wound was well washed with cold water, the gut completely restored to its natural position, and an appropriate compress and bandage applied to support it there, as the tendency to its descent is always increased by the operation, until the excisions are contracted and healed. A pupil was left in attendance, to see that there was no hemorrhage, to which this operation is rather liable, and of which nearly a fatal example will be found in a succeeding case. In the evening the patient complained of violent pain. On examination, the gut had descended in his attempt to pass air. The pain was doubtless the effect of the pressure of the sphincter. The gut was replaced with a globular compress fixed over the site of the anus, with an injunction to the patient, to restrain his inclination to pass wind.

The contraction of the anus in this case was so great during cicatrization, as to occasion inconvenience in the passage of the stools. This was remedied by a bougie, and for some years the patient has been entirely cured. It is better in these cases to open the bowels on the day preceding the operation, and to give no solid food on that day.

CASE 2. Prolapsus Ani—Power of the Sphincter extinct—Nearly fatal Bleeding from the Operation.

A lady consulted our author for a prolapsus of the bowels of immense size; it was almost constantly down, and would descend on her standing, even for a moment. The lady was old, and relaxed; the sphincter exceedingly lax. She had indulged greatly in purgative medicines. There was very little loose integument about the verge of the anus, but an operation was desired and therefore performed. Considerable portions of slightly projecting skin were raised from the inner margin of the anus, and a wound nearly surrounding it was left. A compress and bandage were applied, and for some time a gentleman sat with the patient.

About three hours after the operation Mr. Fletcher was summoned, and found her almost in articulo mortis, from profuse hemorrhage. Brandy, hot bottles, &c. were in requisition; the patient rallied, a small vessel was discovered bleeding on the right side of the anus, it was secured, and she recovered. After the healing of the wounds, the bowel descended to the extent, perhaps, of one-fifth of its former size, when the patient was at the water-closet. With the aid of a spring truss, with a spherical pad, the prolapsus was afterwards tolerably manageable.

CASE 3. Prolapsus Ani, with extensive Adhesion to the surrounding skin—Operation successful.

Mrs.—, æt. 44, had had prolapsus ani irreducible for four years. The bowel being in concentric folds, and was adherent in several points to the skin, whilst the sphincter was exceedingly relaxed. "After clearing the bowels well on the previous day, and permitting the patient to take slops only of gruel and milk, I proceeded to the operation, endeavouring first to remove the gut out of the way, by reducing it, and then restraining its descent by the introduction of a large bougie, whilst I dissected the skin freely away, by the side of the instrument, from the anus and bowel. But still the gut would descend, or was pulled down by the adhesions by the side of the bougie in places, and I therefore ultimately had the intestine held aside by the assistant, whilst those adhesions were separated, and all the loose skin freely removed, which was pulled out forcibly from the anus with a tenaculum. It was curious to see, as soon as the incisions were completed, the muscular coat of the intestine, together with the relaxed sphincter, began to act vigorously, and carry the gut into its proper place, and retain it there with ease, whilst all my attempts to accomplish this with my own fingers were unavailing. The stimulus of pain, coupled with the liberation of the adhesions, was probably the source of this renovated vigour.

When it is desirable to make the adhesive process as firm and as contracted as possi-

ble, I am in the habit of laying pieces of sponge upon the anus, and filling the hollow of the buttock with it, so that considerable pressure is made upon the part, which is already contracted or tucked up: the muscular action is assisted in retaining that tucked up character by the external pressure."

The lady was kept in the recumbent posture, and recovered with the anus as smooth as ever, though the aperture required, from its small size, occasional enlargement with a candle.

CASE 4. Is that of an elderly maiden lady who had a tumour about the size of a double walnut, which proved to be the lowest portion of the bowel adherent to a portion of loose skin just within the anus. The operation consisted in separating, by dissection, the fold of the skin from the intestine, to an extent sufficient to ensure union to the sphincter. The operation prevented any further descent, and the remains of the tumour disappeared by absorption within the gut. The next case was one of old prolapsus ani, with a cartilaginous tumour, about the size of a large garden bean, hanging by a long pedicle from deep within the verge of the anus. Mr. F. cut away the small tumour at the farthest end of its pedicle, and then, introducing a bougie into the rectum, operated for the prolapsus in the manner already noticed. On her discharge from the hospital there was a very slight appearance of the gut when she strained on the side of the anus, where a bit of loose skin had been left.

The preceding cases were given with the view of shewing the necessity of ascertaining as far as possible, the causes of prolapsus ani, before attempting its radical cure by operation. In order to ascertain whether a stricture exists in the rectum, Mr. F. recommends that a bougie, previously softened in warm water and adapted to the curves of the gut, should be passed its whole length. A stricture is capable of occasioning prolapsus ani, by the great efforts which it causes the patient to make. With respect to Mr. Fletcher's recommendation respecting the use of the bougie, we cannot forbear remark-

ing, first, that it is contrary to the advice of some of our best surgeons; secondly, that if followed by inexperienced persons it might be productive, as undoubtedly it has been, of disastrous consequences. Ordinary stricture of the rectum is seated at no great distance from the anus; the stricture at or about the sigmoid flexure of the colon is hardly amenable to the bougie without a considerable degree of risk. But this by the way.

CASE 6. *Prolapsus Ani, conjoined with Stricture of the Rectum.*

Miss——, æt, 25, consulted our author for piles, from which she said she had suffered for nine or ten years. She was emaciated, and very nervous. She said that something would come down after every evacuation, but would return after she had laid on the bed for an hour or two, when burning pain occurred, and continued about the anus and lower part of the back. On attempting to walk the bowel descended, the stools were passed with great difficulty, and were remarkably small. On examination, a very large prolapsus of the lower extremity of the bowel took place when the patient strained. On replacing the prolapsus and introducing the finger, a stricture was found at about an inch and a half from the anus, and the gut was found contracted, exquisitely tender, and thickened, as far as the finger could reach. She had been subject to difficulty in passing her motions, and burning pains for many years—to prolapsus for three years.

Under these circumstances our author imagined that the prolapsus was the consequence of the stricture, and gave a cautious pronogsis. The bougie was carefully employed for four months, at the end of which time a full sized one could be passed nearly 11 inches. The operation for prolapsus ani was then performed, succeeded well, and the patient is now a fine healthy young woman.

"The foregoing is a very serious example of the folly and mischief arising out of the practice of prescribing for *supposed* complaints, the product of the patient's own judgment or imagination, the real nature

of which might have been readily discovered by a proper examination of the parts concerned. No examination was ever made, in this case, until the lady came under my observation; and even then she said her malady was piles; and they all say so. All the various affections of the anus are so called by the patients. But the medical man ought not to copy the errors of his patient, to believe without evidence or conviction, which will assuredly lead him to prescribe for diseases which exist only in their conjoint imaginations.

Here was a young lady who lost many of the best years of her life, and what was worse, spent them in wretched suffering, or in swallowing loads of useless medicine; nay, further, who was carried into the very jaws of death, by one complaint of a very trifling nature being mistaken for another of the highest importance to comfort, and to life itself.

Had an early examination of the parts concerned been carried into effect, the true affection would have been quickly revealed, and the sad miseries she subsequently endured, wholly prevented.

When a discovery of the real malady was at length made, she was cured, without any medicine, in fewer months than years had been previously occupied in pursuing a wrong course.

This case then will furnish another valuable lesson, which indeed may daily be taught, if we would learn, viz.—never to prescribe for affections of the anus, without a proper visual and manual enquiry into their real character.”

In the next case, a lady was operated on for prolapsus ani by the ligature. The procidentia was benefited, but she suffered, and, anterior to the operation, had suffered from costiveness, pains in the loins, &c. On examination, Mr. Fletcher found a stricture of the rectum at the distance of five inches from the anus. After a time a bougie was got through the stricture, and a recovery is anticipated by Mr. F.

A lady, æt. 50, the mother of many children, had undergone excision for prolapsus ani with temporary benefit. Soon, however, a difficulty of voiding her stools, which had previously existed, was increased, with a deceptive feeling of protrusion. Then an abscess formed by the side of the rectum, and the gut was found to descend occasionally within the painful gripe of the sphincter, but never to pass through it. There were also some symptoms of stricture. The abscess was laid open into the gut, and some portions of loose skin were removed. Before the wound was healed, a stricture was discovered at four inches and a half from the anus. Though a bougie of moderate size is passed three times a week the stricture is not wholly removed. No recurrence of the procidentia has hitherto taken place.

Our author concludes by the mention of another case, in which there is prolapsus combined with stricture at five inches from the anus; no bougie can be got through it. With the following brief observations we conclude.

“In my own practice, the prolapsus ani has occurred much more frequently in females than in males, in the proportion of seven to one; a fact that may probably be accounted for on the ground of their relaxed texture, and indulgence in physic, which must ever weaken and relax the part concerned in this very distressing and disgusting complaint.”

“Writers on stricture of the rectum may have mentioned prolapsus as an occasional effect of it. But I do not remember any writer on the prolapsus ani itself who has considered stricture as one of its causes, and thence derived a rule to examine the whole extent of the bowel, previous to any operation for the cure of the first affection.”

Perhaps none of the minor operations of surgery require more tact and experience than this examination of the whole course of the rectum with the bougie. The natural obstructions in the canal are many, and may be still more numerous from disease and other circumstances; and such difficulties can only be met successfully by a

CASE 8. *Prolapsus from Stricture—temporary Cure from Operation—Fistula Ani.*

knowledge of the anatomy, natural and morbid. The angles made by the bowel itself, the projection of the sacrum, an enlarged or retroverted uterus, or prostate gland, a spasmodic stricture, or hardened faeces, are all to be taken into consideration, and well remembered by the surgeon, otherwise he may take some of these obstructions to the passage of the bougie for a stricture, when, in reality, no such affection exists. The character of the bougie itself may increase the difficulties.

If it be too small, or too soft, these natural obstructions to its route will turn back the point, and leave it curved in the bowel, thus confirming the original error."

We think the cases worthy of the attention of practical surgeons.

XXI.

OBSERVATIONS ON THE USE OF TOBACCO AS A LOCAL APPLICATION IN GOUT, AND OTHER CASES OF CONSTITUTIONAL INFLAMMATION. By JOHN VETCH, M.D., Physician to the Charter-house.

[Med.-Chir. Trans. Vol. XVI.]

THIS paper is so very concise that we need not abridge it.

Under other circumstances it had been my intention to give to the public a series of detailed cases to establish the beneficial effects of tobacco as a local application, and one capable of alleviating in a great degree, and of sometimes altogether arresting various forms of specific inflammation, more particularly gout and rheumatic inflammation attacking synovial membrane. Besides the power which this vegetable possesses in allaying the pain and abating the inflammation of gout, it assists the parts most materially in recovering their tone and strength.

The sensible effects of tobacco upon the skin and cuticle are readily perceived, by immersing, for a short time, the fingers in an infusion, or in a watery solution of the extract.

The infusion forms a valuable application in all cases of erysipelatous inflammation, and the only precaution to be attended to, is not to apply it to any part contiguous to the stomach, unless the production of nausea be at the same time desirable.

I was led to appreciate the valuable sedative and astringent power of tobacco in the first instance, by the benefit I derived from it in cases of the last-mentioned class, having many years ago instituted an extensive trial of all the known narcotics, with the expectation of deriving additional aid in the treatment of purulent ophthalmia.

The good and the powerful effects which I obtained from the tobacco, fully compensated for the inefficiency of all the other local applications I then tried; its effects were notorious to all who saw it employed, and I now, as I ought to have done twenty years sooner, recommend its use to general notice, in cases of acute migratory inflammation, and especially when it attacks the joints, testicle, or sclerotic coat of the eye.

The infusion as directed by the London Pharmacopœia is sufficiently strong, and in many cases it is well to rub the parts with eau de cologne after the use of the tobacco.

Charter House, 28th. Feb. 1831.

XXII.

COLLECTION DE MEMOIRES SUR LA PHYSIOLOGIE, LA PATHOLOGIE, ET LE DIAGNOSTIC. Par P. A. Piorry, M.D., Paris, 1831.

ABOUT three-fourths of this volume are taken up with percussion, by means of the pleximeter, and with physiological experiments on animals, more especially to ascertain the effects of sanguineous depletion. The last fourth of the work is occupied with the diagnostic appearances of the tongue, and the effects of inordinate abstinence on the thoracic and abdominal organs. Of the phenomena presented by the tongue, we gave a concise analysis in our 29th Number (July 1, 1831), and therefore we shall not touch on that subject in

the present paper. We shall proceed at once to the memoir "ON ABSTINENCE, ON INSUFFICIENT ALIMENTATION, and THEIR DANGERS."

Hypotheses rise and fall; but faithful observations or facts resist the hand of time. No precept has stood this test more fully than that which tells us that 'abstinence is useful in acute diseases.' Men have always a tendency to run into extremes, and carry the most salutary precepts into dangerous excesses. Our author sets out by reminding his readers that the fluids of the body exercise a great influence on the functions of the machine; and that these fluids, more especially the blood, which is the source of all the secretions, are greatly modified, not only by the quality but the quantity of our food. The organs of the body suffer from deficiency as well as from excess of their natural stimuli. In the former case, the blood is not carried with sufficient energy towards the brain; and what is curious, there arise, in such circumstances, symptoms very closely resembling cerebral congestion. Pains take place in the muscles not properly supplied with stimulus to activity—the eye gets inflamed in dark places, and often is cured spontaneously by exposure to light—the stomach deprived of sufficient alimentation becomes the seat of severe pains and obstinate vomiting. The author then traces the effects of rigid abstinence (*la diète absolue*) and insufficient alimentation on the blood and muscles—the heart—the lungs—the digestive organs—and the nervous system.

I. ON THE BLOOD.

There is no doubt, he observes, that the first effects of rigorous and prolonged abstinence is a diminution in the quantity of the circulating fluid. Collard, of Martigny, has made many interesting experiments on this point. The proportion of fibrine diminishes in proportion to the diminution of alimentation; while albumen, on the other hand, augments. The whole volume of blood also diminishes, while the muscles de-

crease in size and firmness. Fourteen days of "*diète absolue*" were sufficient to render the muscles of the extremities exceedingly flaccid, wasted, and weak. Their constituent principles are, in fact, absorbed, to repair the loss which the blood necessarily sustains by secretion, &c. The muscles of the trunk experience a similar degree of atrophy, and our author thinks it probable that the muscular pores of the viscera undergo a similar change. The fat, and even the denser tissues of the body must, though more slowly, share the same fate, although there are instances on record where death was produced by starvation, without emaciation. We much doubt these statements. It is, however, to be recollected that increased absorption, in consequence of diminished quality of blood, is not near so great in disease as in health—nor of diseased parts so much as of sound parts. Hence it is that we may starve our patient before we produce the absorption of a morbid growth in any part of the body.

The blood diminishes but little during the first few days of sickness and abstinence, because the various organs furnish materials for the circulation, and so do the drinks taken, and even the air we breathe. But afterwards we see the same phenomena which succeed hæmorrhages. The lips, the tongue, and the conjunctiva become pale—the veins flatten, and the circulation through them becomes slow—the arteries beat with less force—the heart diminishes in size—the chest returns a clearer sound—and the liver shrinks. The ultimate effects, too, of hæmorrhage and abstinence are the same, debility—disinclination to motion—slowness and torpor of all the functions—tendency to syncope in the erect position—and finally, death, from defect of cerebral excitation. It is thus that the scene terminates, when profound lesions of the alimentary tube obstruct assimilation—when inordinate evacuations carry off the pabulum of life—or where prolonged abstinence cuts off the supply of nutriment from the body. To deprive a patient long of food is to bleed him largely—and it would often be better to bleed him and give him nourishment at

the same time, than to starve him too long. Venesection may be carried to a great extent with safety, when the alimentary tube is in a sound state, and capable of supplying chyle, when nutriment is at length given; but we should be cautious of severe depletion or rigid abstinence, when the *primæ viæ* are in a different condition; for then we shall find it difficult to re-establish strength when the malady is at an end.

"Would we (says M. Piorry) try to cure phthisis or cancer by starvation? This rigid regimen, by cutting off the supply of nutrition, will only hasten the fatal catastrophe! We dread irritation; but we incur still more dangerous consequences—inanition and its accompaniments. Extreme low diet (*la diète absolue*) will kill a dog in twenty-five or thirty days; yet we put men on this system for months!"

It is vain, says he, to tell us that the patient takes gum-water, sugared water, emulsions, &c. This is not sufficient alimentation, either for people who are sick, or those who are well. The dogs which Magendie fed on sugar, oil, butter, and gum, died in little more than thirty days of this regimen. If you wish to prolong the days of those who labour under incurable diseases, you must supply the blood with chyle. Do we not see the wound made in lithotomy heal under a nutritive diet, and remain open if we keep the patient too low? How can we expect, then, to heal an internal ulcer by starvation? Let it also be remembered that, in internal ulcerations or malignant diseases of structure, there is an increased absorption, where rigid abstinence is enjoined, and, consequently, a vitiation of the blood. To prevent this, we ought to supply healthy chyle. We see that people who would die in town, get well in the country. No doubt there is a great deal owing to the pure air of the latter situation. But are we to attribute nothing to the increased nourishment which the change of air and scene enables the patient to take? Good wine, says the Doctor, and generous living, are the best tonics. Our estimable Pinel acknowledged that the "*VIN D'ARBOIS*"

saved his life, when medicines failed. It is thus, perhaps, that the Charlatan sometimes succeeds, when the physician, with his rigid diet, sees his patient daily get worse. Our author does not accuse M. Broussais so much as his blind disciples, in starving their patients to death through the chimerical fear of irritation. "I have seen (says he) patients who had been kept fifteen, twenty, thirty days—nay, six or eight weeks, on gum-water; and to whom chicken-broth has been refused, the terror of irritation being so great, that the Doctor trembled at substituting toast-water for the crystal spring. "On other occasions (says he) certainly not numerous, but likely to be so, I have known individuals feeble, pale, and emaciated, condemned to absolute rest, and to live for years in protracted agony (*vivre, pendant plusieurs années, dans une longue agonie*) on sugar and water, a small quantity of milk, &c." These errors have arisen out of an exaggerated fear of *inflammation*, rather than of irritation—for the latter is often increased by too rigid abstinence, debility being the parent of irritability. Sick or well, and especially in chronic maladies, there ought to be allowed a sufficient nourishment for the support of the human machine—and the quantity is to be proportioned to the age and strength of the patient—but more especially according to his former habits and his constitutional idiosyncrasy. The following picture is not imaginary.

"Take a man in perfect health, and submit him to the following regimen. Give him two or three plates of soup maigre, (*potages de quelque onces par jour*)—eau sucrée for drink—and even add to this an egg. Prohibit bread and wine—and reflect on the consequences of this regimen. The sense of hunger will be only momentarily assuaged during the first few days; but afterwards it will diminish, because this sensation, like all others, is under the dominion of habit. In the course of a week or ten days, the individual will experience debility, will be thinner, and his muscles more flabby. In another week, these phenomena will be increased—and the stomach will probably

become irritable, and even painful. By perseverance in this regimen, the patient (for he is now really ill) will offer all the symptoms of one who has suffered from repeated hæmorrhages."

II. ON ABSTINENCE IN DISEASES OF THE HEART.

Under the influence of abstinence, the heart, like all the other muscles, diminishes in volume—and on this fact was founded the treatment of VALSALVA. This treatment is indicated in hypertrophy of the ventricles—especially when uncomplicated with contraction of the orifices. Abstinence will have no effect on this last complaint—sometimes a bad effect. Nature strengthens the muscular fibres of the heart, when they have an unnatural resistance to overcome. By diminishing the strength of the parietes we weaken the power of carrying on the circulation, without in any way removing the obstruction. It is not the violent action of the heart which we have so much to dread, as the cause which produces it. The great object, in such cases, is, not so much to lessen the size of the heart, as to proportion the calibre of the arteries, and the orifices of the central organ, to the volume of blood which is in circulation, while, at the same time, we bear in mind that there is a certain force to be sustained in the various other organs of the body. Then it is that repose is necessary, in order that a smaller quantity of blood may suffice for supporting life. To diminish the quantity of the circulating fluids, and impoverish (to use an antiquated expression) the quality of the blood, is the most rational treatment in these diseases. And yet the defect of nutrition, and the general debility, which are the inevitable results, must ultimately terminate fatally. Our author thinks that detractions of blood from the arm, by which the volume is quickly lessened and the embarrassment of the circulation relieved, are better than slow evacuations by leeches, which debilitate, without materially relieving the patient.

It is also to be remembered, that hypertrophy of the heart exists under two very different forms—one, where the muscular structure is firm and resisting—the other where it is soft and flabby. The former state appertains chiefly to youth and robustness of constitution—the latter to age and debility. Unfortunately, the diagnosis of these two different conditions is not so firmly established as some pathologists imagine. Auscultation has promised rather more than it has performed. "The *bruits* are very deceptive, percussion is insufficient, and the functional symptoms lead us often astray." Nevertheless, he acknowledges that auscultation, percussion, and a careful observation of symptoms, may enable us to do a great deal in the mitigation of these dreadful afflictions.

In respect to those passive dilatations of the heart, with mollescence of its structure, which we so often meet with, an extreme low diet is not only inefficacious, but absolutely injurious. Even simple dilatation of the heart, whether of the right or left cavities, does not require extreme abstinence—on the contrary, the dilatation is generally increased by such procedure. Where there is reason to believe that the parietes of the organ are soft, we ought to give nourishing diet, and even tonics, especially steel.

"Of the great numbers who have applied to me for palpitation of the heart and difficulty of breathing, and who considered themselves affected with organic diseases of the heart, the greater number of them had no hypertrophy or dilatation—no stethoscopic bruit—no symptom of stricture of the orifices. Many of these, especially medical men, had been put upon vegetable and most debilitating diet; nevertheless they received no benefit from that plan. They went up stairs with great difficulty, and all their symptoms went on increasing in severity. Not perceiving the proofs of organic disease, I changed the plan of treatment, prescribed substantial and plentiful diet, and soon found that the amelioration was progressive and decisive." The author details a remarkable case in illustration.

III. ON THE DANGERS OF ABSTINENCE IN DISEASES OF THE LUNGS.

In unequivocal inflammation of the lungs or their investing membranes, there can be no question about the necessity of rigid abstinence. But will this hold good, says he, "in those congestions of the lungs evidently the result of mechanical causes, of defect of venous action—in those stases of black blood which take place consecutively to diseases of the heart—in old people, and in those who have been long enfeebled by chronic maladies?" I do not, says he, think it will. The principal indications, he observes, which present themselves are, to diminish promptly the quantum of blood circulating through the heart and lungs—and then to stimulate these organs into greater energy. It is not *irritation*, says he, which attracts the blood to the lungs in diseases of the heart. It is the mechanical obstruction to the circulation, and the gravity of the fluid itself, in conjunction with the weakness of the powers which move the blood. Take away, therefore, some blood, to give freedom to the circulation, and then give energy, if possible, to the organs which impel the vital fluid, by generous diet, in small quantities at a time, and watching the effects. This is bold doctrine, even in England, and in France it must be downright heresy. "Yet," says M. Piorry, "it is not without long experience and ample reflection that I have come to these conclusions." This theory rests upon solid and numerous facts. A great number of pulmonic inflammations, coupled with cardiac affections, in old people, were treated at the Salpêtrière by blood-letting; but on the succeeding, and sometimes on the very same day, bouillons and light soups were given, occasionally wine. This plan succeeded better than the plan of rigid abstinence.

Regimen, says he, in phthisis pulmonalis, is of the utmost consequence. Broken-down or softened tubercles will not heal on the starving system—nor will crude tubercles be absorbed by that system. Expectoration will not be rendered easier by de-

priving the patient of alimentary sustenance. On the contrary, the absorption of pus from ulcerations in the lungs will be increased by abstinence, and hectic fever thus kept up—"in short, by starving a phthisical invalid, we add an additional evil to a frightful disease." Pathological anatomy teaches us that ulceration of the intestines is one of the most common causes of debility, and even of death, in phthisis. Vegetable food, which is more difficult of digestion than animal aliment, irritates these ulcerations, and increases the malady. "I am (says M. Piorry) very much deceived, if animal food should not be found necessary and beneficial in a great number of phthisical cases, that are now doomed to asses' milk and farinaceous aliment."

IV. ON THE EFFECTS OF ABSTINENCE IN DISEASES OF THE DIGESTIVE TUBE.

No practitioner would dream of giving animal, or any kind of full diet, in acute inflammatory affections of the stomach or bowels; but M. P. observes, there is some difficulty in ascertaining the time when we ought to discontinue the starvation system, when the disease assumes the chronic form. The appetite of the patient is some indication; though it is not always to be depended on. The effects resulting from the process of digestion, and also from the sanguification which ensues, are more safe criteria. Because the tongue is loaded, and the appetite nul, we are not thence to conclude that food is unnecessary. Often, in such a case, the attempt to masticate will recall some goût for victuals, and quickly clean the tongue. Pain in the stomach is not always a counter-indication against food. On the contrary, there are many cases and constitutions, where the epigastric pain is lessened by eating and increased by long fasting. Patients of this kind will throw off slops from their stomachs, and both relish and digest animal food.

The author has pushed his remarks to the diseases of the encephalon, and the effects of rigorous depletion and abstinence in such cases. But our limits are exceeded, and we must close the paper here.

XXIII.

ON WANDERING ERYSIPELAS. By M.
RENNES, M. D. of St. Omer.

Dr. R. has published a paper under the above head in a late number of the *ARCHIVES*, and elucidates the subject by the two following cases.

Case I. A soldier of the 15th regiment, 21 years of age, of sanguineo-lymphatic temperament, had suffered slightly from otitis, succeeded by a discharge from the ear. On the 2d March the discharge suddenly stopped, and on the succeeding day was replaced by erysipelas over the whole of the left side of the face. In this state he entered the Hospital of St. Omer, where Dr. R. is chief physician. The head was heavy, the pulse full and frequent, skin hot, thirst urgent, tongue edged with red, abdomen rather sensible to pressure. Venesection—20 leeches to the epigastrium. 5th. The erysipelas was less vivid, the fever moderated. There was some delirium in the night. Tartrate of antimony and cream of tartar drink, and in the evening sixteen leeches to the neck. 6th. The erysipelas had subsided on the left side of the face; but it now commenced on the opposite side, with a great increase of fever and delirium. *No discharge from the bowel for several days.* The same drink to be continued. In the course of the day the erysipelas extended to the neck and shoulders. Evening, *no evacuation from the bowels.* The pulse is quick and sharp—skin hot and dry.—20 leeches to the neck—two grains of tartar emetic in a lavement. The consequence of this last remedy was *several bilious stools.* The night was passed in *tranquility*, and next morning the patient was much better in every respect. The fever soon subsided, but the erysipelas continued to spread downwards. Another emetic glyster was exhibited, and produced copious bilious stools. Although the erysipelas continued to spread even to the extremities, the constitutional symptoms were mild, and on the 26th of March the patient was discharged from the hospital.

Remarks. It is impossible not to perceive the injurious consequences which flowed in the above case, from the antipathy which our Gallic neighbours bear towards aperient medicine. This man had no evacuation from the bowels for many days, and the erysipelas, as well as the constitutional disturbance, became daily exasperated. Yet no purgative was even dreamt of; and until the two grains of tartrate of antimony were exhibited in lavement, the disease received no check whatever from any thing that was done. The bilious evacuations instantly lowered the constitutional disturbance, and although the cutaneous affection continued to spread, yet the whole of morbid phenomena were greatly mitigated in severity, and ended safely.

Case 2. This was a young lady, who became affected with erysipelas of the face, accompanied by constipated bowels, and she underwent the usual routine of leeching, mustard poultices, blistering, and glystering, without the *slightest* relief. On the contrary, the constitutional symptoms rose to such a height that her life was despaired of; yet no aperient medicine was ever prescribed!! At length Nature seems to have effected what the physician did not aim at—the evacuation, “*pour la première fois quelques grumeaux de matieres noirâtres.*” This discharge of black and grumous matters, however, was too scanty to produce much effect, and the erysipelas with all its constitutional symptoms, went on unmitigated for a day or two longer. After a very dangerous state, this lady ultimately emerged into convalescence.

Remarks. These two cases are valuable in shewing the necessity of clearing the bowels effectually, and indeed daily, of all vitiated secretions and excretions, during the progress of erysipelas. It is marvellous that the French physicians continue nearly as blind as ever to the benefit of purgation in acute diseases.

XXIV.

CASE OF EPILEPSY CURED BY IODINE.

DR. FRANKLIN, of New York, has published the following case, which we shall lay before our readers.

Feb. 28th, 1831. O. B. the subject of his complaint, early displayed great precocity of intellect, and was endowed with a frame proportionate in vigour to his intellectual capacity; in complexion fair; temperament sanguine; quickly impelled to anger, but easily soothed; indignant at insult, but alive to kindness; disposed to friendship, and discriminating in his selections; ambitious beyond his years; with a memory almost intuitive. No obstacle seemed equal to prevent his advance to the *ultima thule* of any profession to which inclination should direct him. The expectations of his friends were damped by an attack of epilepsy, the incipient symptoms and progress of which I will now proceed to relate.

His nervous system from early boyhood indicated an excessive irritability to external impressions; whether this was congenital, or induced as his mother surmised, by excessive doses of calomel prescribed by a medical gentleman in the South, during a fit of sickness,* I am unable to decide.

When about eight years of age the attention of his parents was directed to the position he would assume when injured by any external agent. If his toes struck against a stone, or his fingers were irritated by any sharp instrument, as a pin or a needle, his eyes protruded, the muscles of his mouth were agitated, his arms contracted and elevated towards his head, and he would stand as though transfixed with horror at the sight of some terrible object. As these paroxysms subsided in a few seconds, they were rather attributed to a foolish habit he had acquired than to any disease, and under this impression he was frequently reprimanded by his parents but without avail.

About this time he escaped their cognizance by being sent to school in the country, where from subsequent information it appears the paroxysms increased rapidly in severity and number. He would then occasionally for the first time, when unexpectedly struck by his playmates, or upon the receipt of any injury, fall to the ground without the ability of resisting the impulse. His teacher having directed the boys to dash water in his face to bring him to, they would frequently induce a fit by striking or pricking him for the sport afforded in throwing water. His countenance, hitherto indicative of vivacity and intelligence, now began to assume the vacancy so peculiar to this complaint, and his mental faculties, hitherto vigorous, began to be impaired.

After an absence of a year he returned home, when his altered appearance, and the frequency of his fits, immediately attracted attention and excited great alarm. The most trivial injury induced a fit, and he would now invariably fall, bruising and lacerating himself dreadfully, always falling upon his face or the back of his head, generally the latter, and that so frequently as to establish a general issue.

It was now for the first time discovered that these fits occurred during sleep; at these times he would foam at the mouth and roll his eyes; his hands and arms would be spasmodically contracted, and drawn towards his head. He would gasp for breath, and in his worst fits would turn black in the face. These paroxysms subsided in four or five minutes, leaving him very languid and exhausted.

He said he was conscious of what was passing about him, but could not articulate. The pain he described as that caused by two bones meeting and rubbing in his chest. The sense of his situation operated so acutely upon him that he preferred death to life. His appetite was good; the food was regularly assimilated; he complained of no pain in any part of the system during the intervals of paroxysm.

Such was the state of the patient when I commenced the treatment. I ordered the *Ecioprotic mixture* in quantities sufficient

* Bilious fever at Florence.

to keep the bowels soluble, and the *tinct. of iodine*, 40 grs. to the oz. gtt. v. to be taken three times a day. This was gradually increased with but little success until he took 300 per diem, or 100 three times a day. At this time symptoms of amendment displayed themselves in the mildness of the night fits, and their diminished number. Flattered by this improvement, I continued the above-mentioned quantity for about one month, the system daily becoming less and less obnoxious to the disease, until I am happy to say, every vestige of the complaint disappeared. From that time to the present, a period of three months, he has enjoyed uninterrupted health. In conclusion permit me to add, instead of emaciation as I had a right to expect, by reduction of diet and the medicines taken, he actually gained flesh.—*Lancet*.

Remarks. We doubt very much the propriety of calling the above disease a case of epilepsy. The anomalous features of the attacks, and the circumstance of *consciousness* remaining during the paroxysms, have raised our doubts. Be this as it may, the enormous quantity of iodine taken, is enough to astonish us, if not to create an apprehension that the medicine was totally inert. The want of all apparent effect from the prodigious doses of iodine, excepting the fattening process which took place during its exhibition, is another stumbling-block which we cannot easily get over.

XXV.

BRITISH MADEIRA.

WE do not mean the wine which is manufactured in this country, and passed off as the produce of Madeira; but a Winter residence on our own shores, combining many of the good qualities of certain celebrated foreign climes with the comforts of an English fire-side. The situation to which we

allude is UNDERCLIFF, in the Isle of Wight, which has been recognised by medical men as no mean substitute for Madeira, Nice, Pisa, and other fashionable places of resort for British invalids during the gloomy skies of an English Winter. We have reason to believe that speculation is afloat in providing comfortable accommodations for those who may be disposed to try the effects of the above-mentioned sheltered and salubrious spot, in preference to the hazardous journey to Italy or the South of France. We have just received the following notice.

“MOUNT CLEEVES HOUSE, UNDER-CLIFF, NITON, ISLE OF WIGHT, distant one mile from the Sand-rock Chalybeate Spring.

This house, with its lawns and pleasure-grounds and dry walks reaching to the foot of the Upper Cliff, extending over ten acres of land, is opened for the reception of select Family Parties. Attached to it is a Bathing-house and Dressing-room on the sea-shore immediately below, a luxury not elsewhere to be easily obtained; and a Dairy is kept for the supply of milk and butter.

The peculiarly dry and healthy situation of the House and Grounds; its proximity to the Sand-rock Spring, distant one mile, a favourite walk; the extreme purity of the water and convenience for sea-water bathing—render Mount Cleeves a most desirable residence for persons in delicate health. The mildness of its climate is proverbial, fitting it for a Winter's residence for invalids, scarcely inferior to the Island of Madeira, whilst it is much superior to it in the advantages which it offers in point of convenience of distance for removal and medical attendance.

There is a daily delivery of Letters and Newspapers at the House. The best route is by Portsmouth, where the Ryde Steam-Packets await the arrival of the London Day Coaches: the Packets are met at Ryde by the Newport Coaches. At Newport vehicles of every description may be obtained. By this route passengers from London may reach Mount Cleeves at Eight or Nine o'clock in the evening, or in about twelve hours.

Small parties, wishing to be relieved from the trouble of providing for themselves, may be accommodated with partial Board at Mrs. Pedder's table.

For Terms and other Particulars apply [Letters to be post paid] to Mr. Pedder, at Mount Cleaves House, Under-Cliff, Isle of Wight.

References may be made to Mr. Hunter, Bookseller, 72, Saint Paul's Church-yard, London."

The very unsettled state of the Continent, and the knowledge which Englishmen have dearly obtained of the inutility, not to say injury, in many instances and in many complaints, of an Italian climate, will prove a great check to the emigration of invalids for some time to come. It is, therefore, of some importance to know that, at UNDER-CLIFF, commodious quarters may be obtained for invalids, with the advantage of a climate scarcely inferior to that of Madeira.

XXVI.

BLOODY PERSPIRATION.

A CURIOUS case of this kind is related in the French "*Transactions Medicales*" for November last.

Case. A young woman, aged twenty-one years, irregular in menstruation, and of indolent habits and obstinate temper, had been much irritated by some reflections made by her parents, on account of her abjuring the Protestant religion. She left her paternal roof, and after wandering about for some time, took up her residence in an hospital. She then was suffering violent attacks of hysteria, attended with general convulsions, and exquisite sensibility in the pubic and hypogastric regions. After paroxysms of hysteria, which sometimes lasted 24 or 36 hours, this female fell into a kind of ecstasy, in which she lay with her eyes fixed, sensibility and motion suspended. Sometimes she muttered a prayer ; but the

most remarkable phenomenon was an exudation of blood from the cheeks and the epigastrium, in the form of perspiration. The blood exuded in drops and tinged the linen. The cutaneous surface appeared injected in those parts whence the blood escaped, being red, and shewing a net-work of arborescent vessels. This bloody perspiration took place every time that the hysteric paroxysm continued for a considerable time. This state continued for three months ; and ultimately gave way, it is said, to local bleeding about the head and sexual organs, together with strong revulsive measures.

XXVII.

MORBID EFFECTS OF DIGITALIS IN A NERVOUS SUBJECT. By M. SABATIER.

[Hebdomadaire.]

CASE. Mad. M. aged 23 years, of acute sensibility, amiable temper, was born in affluence, but doomed to misfortunes. She married, but lost her first child, on whom she doated. This was followed by other moral ills which we need not recapitulate. In March, 1830, she experienced for the first time, an attack of epilepsy, which was repeated twice afterwards, in the course of four or five months. Ligatures on the extremities warded off several threatened attacks. But extreme nervous susceptibility, palpitations, &c. which had been felt for some years, became now very much exasperated. The appetite diminished, the digestion was weak, and all mental or corporeal exertion became distressing. Such was the history previously to May 1831, at which epoch the palpitations assumed a more serious character than ever. The pulse was very frequent and extremely small. The right eye was the seat of most dolorous sensations, and numerous electrical sparks. The attacks of palpitation came on without any exertion or mental emotion. Auscultation did not detect any enlargement of the heart. On the 17th May, small doses of infusion of digitalis were prescribed,

and for two days the lady seemed better; but on the third day a train of symptoms occurred, which proved very alarming. Great weakness of the limbs, sentiment of constriction under the sternum, vertigo, faintings, palpitation, slowness of pulse, with much irregularity, sense of coldness and numbness of the extremities, difficulty of breathing, &c. After the exhibition of æther and some other medicines, a train of the most anomalous and nervous symptoms succeeded, which fill whole pages of the French journal from which we quote, but which need not here be enumerated. Among these symptoms, however, we may state that an obstinate spasmodic constriction of the œsophagus was one of the most prominent and distressing. These phenomena gradually subsided, and have afforded the imaginative Frenchman an opportunity of throwing off a series of conclusions and deductions, no less than *nine* in number, and of the most erudite and hypothetical nature. These we shall leave where we found them. The quantity of digitalis is not very accurately defined; but the effects were of a very embarrassing kind while they lasted.

XXVIII.

REMARKS ON TETANUS. By Dr. SYM.

THESE remarks are called forth in consequence of a paper on the same subject in the 13th number of the Glasgow Medical Journal, by Dr. Perry, analyzed in our 29th number, page 174. The following are the criticisms of Dr. Sym.

“Morbid anatomy is not the only source from which we may derive a knowledge of the seat of diseases; physiology often enables us to point out what organs are in fault, when certain functions are disturbed, because we know upon what organs the healthy performance of those functions depends. Now, the symptoms of traumatic tetanus confine themselves so exclusively to the muscles, that it appears to me difficult to avoid the theoretical conclusion, that local

injuries of the motory organs produce the disease, by throwing into a state of morbid irritation the common origin of the nerves of the motory system. I say morbid *irritation*, because we are not warranted either by the symptoms of the disease, or dissection, to affirm that inflammation is present in every case, or in every stage of tetanus: the vascular excitement, of which traces are found in the vertebral canal, is more likely to have been the effect than the cause of that irritation which is communicated to the motory system of nerves, in the same manner as over-exertion of the mind causes increased action of the blood-vessels of the brain. I would not, however, rest the opinion I entertain, that the profession actually possesses sufficient grounds upon which to found a rational treatment of tetanus, merely upon principles deduced from the doctrines of physiology. Dr. Perry appears to me to have undervalued the facts observed by others, as well as by himself, respecting the morbid anatomy of the disease; for in his own two cases, in the valuable collection of cases published by Mr. Adams, in the 10th Number of this Journal, and in the two fatal cases contained in my collection in the preceding Number, the *post mortem* observations confirm the conclusion, that morbid irritation of the spinal cord had existed during life. Dr. Perry has added an interesting appendix to this proposition, by shewing a connexion between the morbid changes within the vertebral column, and similar changes in the condition of the nerves proceeding from the wound: and although, in his first case, he states, that the cutaneous nerves were those in which traces of inflammation were detected, I must remark, that the superficial peroneal nerve, which he particularizes, is principally expended upon the extensor muscles; and, as it lies between the muscular fascia and integuments of the lower and outer part of the leg, it must have been implicated in the sloughing and inflammation at the seat of the injury.

What, then, are the means by which we may arrest this morbid action of the nervous system of the muscles, or restrain it within

safe bounds until it has wasted its force? I believe that when one portion of a system of organs, engaged in performing the same or similar functions, is irritated, the remaining portions partake of the irritation by sympathy; and that when the irritation of the former is soothed, the latter partake in the relief. I believe also, that when an undue determination of nervous excitement has been directed to one system of organs, other systems, performing dissimilar functions, sustain a diminution of nervous vigour; and that the excitement of the former may be allayed by irritating the latter. I fear we have few direct means of allaying irritation in the whole or any part of the muscular system, which are not liable to the objection of producing a still greater degree of torpidity in the secretory organs. Perhaps the warm bath, as a general remedy, and mild applications to the wound, or, if a slough exists, a fermenting poultice, to counteract, by its carbonic acid, the tendency which dead matter has to fall into putrid decomposition, comprise the most useful sedatives: opiates ought not to be employed to such an extent as to suspend the action of the other remedies. But in our choice of counter-irritants we have a much wider scope, and in severe cases we ought to take advantage of the full range. The skin, the mucous membrane lining the alimentary canal and urinary passages, and the salivary and biliary systems, furnish instruments which may be employed advantageously for the purpose of withdrawing from the muscular system a portion of nervous irritation. There are, however, certain states of the constitution, in which this transfer or irritation is more easily effected than in others. It is effected with less certainty when the system is in full vigour, than when reduced. In inflammation of the serous membranes, for instance, in plethoric subjects, if we apply a powerful blister to the skin before the force of the circulation has been broken by copious blood-letting, we are more apt to aggravate the inflammation than to relieve it; but the same remedy has most happy results, when applied after adequate depletion has deprived the constitution of the

means of supporting two extensive foci of irritation at the same time. Unless, therefore, a tetanic patient is already in a proper state for counter-irritation, blood-letting ought to precede the use of local stimulants, and it ought to be repeated at short intervals until a decided reduction of vascular action has been obtained. Blisters and tartar-emetic ointment applied along the course of the spine extensively and unmercifully, (if I may use the expression,) so as to ensure a severe and long-continued irritation, stimulating embrocations, antimonials, and the frequent use of the warm bath; purgatives of such a nature as stimulate more the mucous than the muscular coat of the alimentary canal, in which view croton oil is less eligible than oil of turpentine or neutral salts; calomel, to excite the biliary and salivary secretions; irritation of the urinary passages by setons or bougies, or by cantharides applied to the denuded surface of the cutis, or by the internal use of oil of turpentine;—these constitute the means of counter-irritation, which have hitherto been employed with greatest success, and which, I trust, if employed consistently, energetically, and in combination with each other, will, ere long, deprive this frightful disease of more than half its terrors.*

XXIX.

CHRONIC TUMOUR IN THE ABDOMEN, PRODUCED BY A LARGE ACCUMULATION IN THE SUPERIOR PORTION OF THE COLON, &c. By JOHN HOWSHIP, Esq.

JULY, 1830, I had the opportunity of examining the body of a tall, stout woman, aged 72, who after many months confinement to bed had died, with the usual symptoms of disease in the uterus.

Upon enquiry of those who had attended upon and nursed the patient, I ascer-

* Glasgow Med. Journal, No. XIV. p. 202.

tained that she had complained of constant pain of the bowels for the last twelve months, with a sense of swelling, or tumor, within the abdomen; which swelling was very large, and, as the nurse said, (who had frequently examined it,) felt uniformly soft and yielding, like a sponge, being principally situated in the right side; although, in changing the position in bed, she had found it, like a great weight, fall from side to side. If, for instance she lay on the right side, a part of it seemed to roll over to that side; and if she turned over to the left side, she immediately felt the heavy mass fall over to that side, with a dragging sensation hardly to be borne.

The frequent magnitude of this tumor within the abdomen was said to have equalled or even exceeded, that of a pregnant woman at her full time; and this remark the patient herself had repeatedly made. After death, the existence of tumor in the right hypogastrium was sufficiently manifest to the eye; it now felt soft, flaccid, and pulpy.

Laying open the cavity of the abdomen, I found this tumour was caused by a considerable enlargement of the whole of the colon, but particularly, as it appeared, of the cæcum and adjacent part of the great intestine. The peritoneal covering also, of these parts of the intestine, was so relaxed and elongated, that the weight of the parts, when the body was laid on the left side, brought the cæcum down to the middle of the abdomen.

Passing a ligature round the middle of the transverse arch, I removed the cæcum and superior portion of the colon, washed out the contents—a very large quantity of stiff pulpy, yet well-digested, feculent matter—and then tying the lower opening, inflated the intestine from the ileum.

In this operation I was repeatedly struck by observing, that although the air passed down freely enough into the cæcum and colon, not any appeared to escape back again into the small intestine. This circumstance I could the less understand, as it appeared that the portion of the gut, where the cæcum is parted off from the colon, was so en-

larged, that the valve there situated was in all probability useless. The inflammation, however, was completed, the ileum tied up, and the preparation hung up to dry.

The next day, expecting to see it dry and expanded, I found it damp, flaccid, and collapsed. The tied end of the ileum was therefore cut off, the intestine moistened in warm water, and again inflated, when it seemed that the air escaped, although I could not discover where, till Dr. P. Robertson, who was with me at the time, suggested the placing it under water; we then perceived the bubbles of air rise from a minute ulcerated opening in the cæcum, which, neither thickened nor discoloured, would otherwise have escaped detection. This secured by a ligature, the intestine retained the air, and was soon dry.

On subsequently cutting an opening into the cæcum, I was so fortunate as to find that the peculiar and very curious state of the parts was well demonstrated.

The original valve of the cæcum, as I had anticipated, was so expanded and drawn aside, by the progressive enlargement of the cavity of the gut, as to have been, for a long time, entirely inefficient; and the consequence was, that Nature, ever watchful over the movements of the animal machine, had contrived (the first valve failing) to form a second, by the readiest and most ingenious device imaginable—that of simply drawing the inner membrane of the gut across the termination of the ileum, in the cæcum.

The dried preparation, which is preserved in my collection, demonstrates the enlargement of the cæcum and the colon, the expanded figure of the original valve of the cæcum, and the position and appearance of the new valve closing the opening from the ileum; an opaque middle line marking the junction of the two portions of the valve.

Observations.—In some practical observations of the diseases of the lower bowels, published several years since, I endeavoured to state clearly what I had seen, in proof that permanent lodgments occasionally take place within the cells of the colon, notwithstanding the apparently free operation of

active purgatives. This fact I was desirous to state clearly, because it is a point upon which I had myself been extremely sceptical; but the proofs there adduced are, I apprehend so conclusive, as to render any further evidence of the fact unnecessary.

In the present case, however, the condition of the intestinal canal was such as was altogether new to me, and such as I could not have anticipated. The colon presented no cells or recesses, nor any portion of the great intestine a point of contraction, either from disease or permanent spasm; the whole of the colon and rectum being found on examination, perfectly free, and moderately occupied. In fact, although the usual habits of the bowels had been those of confinement, for the last fortnight of the patient's life, they had been constantly and copiously relaxed; and notwithstanding this relaxation, the same large tumour appeared to remain, which had for a twelvemonth before induced various feelings of uneasiness, and frequently those of great distress; and this, notwithstanding there must at all times have been a free way through the midst of the mass so often as the bowels were relieved, either by spontaneous action, or the operation of medicine.—*Medical Gazette*.

We have had very numerous opportunities of witnessing collections in the caput coli and ascending arch of the colon, where the symptoms and the manual examinations led to the inference that the liver was enlarged. It is not many weeks since we were led into this error, after all former experience. The exhibition of opiates, conjoined or alternated with purgatives, throws light on these complaints, though it sometimes requires weeks of treatment before the accumulations are broken-up and evacuated.—*Ed.*

XXX.

M. CHERVIN'S TEST FOR THE CONTAGION OF CHOLERA.

M. CHERVIN is a very zealous, and certainly an able, party writer on yellow fever, and

epidemic diseases in general. It was to be expected that cholera would arrest his attention; and it is a wonder that he did not repair to the scene of its devastations to enquire into its nature. He has, however, addressed a letter to the Minister of the Interior, proposing a plan for testing the contagion (if it exist) of cholera morbus. He sets out by observing that, hitherto, the malady has set quarantines, cordons sanitaire, and lazarets, completely at defiance; and he fears, with some reason, that the French and English physicians who have repaired to Poland and Russia; will not be able to settle satisfactorily the question of contagion. He thinks the surest plan of ascertaining the point would be, to institute a series of experiments in some place where the epidemic influence does not yet prevail, and, consequently, where contagion, (if it exist at all) would be tested *per se*, and beyond the range of the original or more general cause of cholera.

He proposes some fixed point in the north-west of France for the trial. Having established a lazaretto, the next step is to collect some of those materials which are supposed to be most tenacious of contagion, and which are, at the same time, most unequivocally imbued with the secretions and excretions of patients labouring under the disease—for instance, shirts, cottons, bed-clothes, &c. worn or used by cholera patients. These are to be secured in the greatest state of impurity, hermetically sealed, and transmitted by a steam-boat, or other vehicle, with all possible expedition to the lazaretto, where people in health are to be clothed and surrounded with the infected materials. M. Chervin offers himself as the first individual for this experiment, and has no doubt that hundreds of his professional brethren will volunteer for the same service, in the cause of science and humanity. If these volunteers, or any of them, become affected with cholera, and if the disease remains confined to these individuals, they being subjected to every precaution which the quarantine laws can effect, we shall then have fair reason to conclude that the contagion of cholera not only exists, but is trans-

missible from place to place by means of clothes, &c. The experiment would also, he observes, determine pretty well the efficacy of quarantine and sanitary codes. On the other hand, if the experimenters remain free from the disease, notwithstanding all these exposures to the foci and nidi of contagion, he imagines that we may safely come to the conclusion that cholera morbus is not propagated by infected materials.

However well adapted the foregoing experiment might be for ascertaining the important point in question, it is perfectly evident that the French Government will not adopt the proposal. If all France were savans and physicians, the plan might be put in execution. But the prejudices of the unlearned community must be respected; and we imagine that no small portion of this, the largest class in all countries, would protest against the measure, as a wanton, nay, an impious introduction of a pestilence which it was the duty of Government to exclude, by all possible means, from the territories over which they bore sway.

P. S. The Government has politely refused.

XXXI.

OVARIAN TUMOUR CURED BY PUNCTURE AND IRRITATING INJECTIONS.

A CASE of this kind is detailed in the Transactions of the Medical Society of Lyon, by M. Rigollot. The patient was 23 years of age, who experienced, after an accouchement, an attack of uterine inflammation, that was not very skilfully treated. The disease became chronic, attended with dull settled pain in the ovarian region, and general ailing. The abdomen became swollen, and slow consumptive fever supervened. Exciting medicines administered (under the supposition that the disease was *tympanitis*) aggravated materially all its symptoms. When M. Rigollot was called to examine the patient, her emaciation was extreme,

her fever continued, the abdomen prominent in its anterior and left lateral part, and obscure fluctuation was perceptible. The tumour was punctured, and ten or twelve pounds of purulent, fœtid, and greenish fluid, escaped through the canula.

Twenty days after, a second puncture was made, which gave issue to some matter, and the cavity was then injected with a decoction of plantain and red rose leaves, with a little wine. Acute pain was endured while the injection remained in the cyst. After its entire discharge, the surgeon kneaded the cyst with his fingers, in order to determine its inflammation. Intense pain, vomiting, and swelling of the abdomen quickly ensued, and were energetically treated with antiphlogistic measures. In a month the cure was complete. The patient, nevertheless, retained in the abdomen a small, oblong, indolent tumour, doubtless formed by the adherent parietes of the cyst.

We would caution junior and "bold surgeons" against too confident expectations from tapping and injecting ovarian cysts. We have witnessed some of these operations; but the results were not of an encouraging nature. When we reflect on the well known fact, that these cysts are almost always divided into compartments, having little or no communication with each other, it will be evident that we cannot evacuate them by puncture; and that to excite inflammation in one or two of these compartments will only tend to increase effusion into the others. Besides, the inflammation itself of the cyst is no trifling danger. In most of the operations which we have witnessed, the patients died of this inflammation—even from common puncture. Within these few days (5th August) we witnessed a fatal case of inflammation of the cyst of an ovarian tumour without any operation; and as the case is curious we shall here state a few of the particulars. The patient was a lady about 35 or 38 years of age, who had a tumour in the centre of the abdomen, which was perfectly circumscribed, excepting inferiorly. The early history of the case could not be obtained, and therefore it was not ascertained whether or not the

tumour originated in one side of the abdomen. Two or three times this tumour appeared to be the seat of acute inflammation, and required very active depletion. A similar attack occurred early in August last, and Mr. Skair, of Castle-street, employed the same means as formerly used, viz. copious depletion, but without the same success. Instead of a speedy cessation of pain, as formerly the result of venesection, the patient fell into a state of exhaustion, with laborious breathing, cold extremities, and great restlessness. From this state she could not be roused by cordials, and she died in less than 24 hours. Mr. Thomas, Mr. Skair, and Mr. Nicholson, examined the body, and we were present at the examination. The tumour resembled a uterus in the sixth or seventh month of pregnancy. It was almost black, so completely injected were the vessels of the cyst. In short, it looked as if it were in a state of incipient gangrene. Yet, strange to say, there was not the slightest adhesion between it and the surrounding intestines, nor any effusion of fluid in the abdomen. No other part was inflamed except the sac of the ovarian tumour, which rose by a very narrow peduncle from one of the fallopian tubes. The other ovary was a solid scirrhus, the size of a small apple, and the uterus itself was *scirrhus*. The cyst contained several compartments, most of which were filled with a fluid resembling blood and water. The others contained solid and semi-solid contents of various kinds.

This case shews that an inflamed cyst may occasion death, without the inflammation spreading to any other organ or part. Therefore the exciting of inflammation in an ovarian cyst is a matter of no trifling danger. The circumstance of the ovarian tumour having gained such a size without any adhesions, and also the fact of its being connected, up to the period of death, by only a small peduncle with the uterus, are favourable to the proposals of those who have attempted and recommended extirpation of diseased ovaries. No case could have been more favourable for such an operation than this, as far as the execution of

the operation is concerned:—and yet it would have been unsuccessful in the end, on account of the scirrhus disease of the other ovary and of the uterus—diseases which would, no doubt, have been called into activity by such a formidable operation as gastrotomy.

XXXII.

SUPPOSED CASE OF INFLAMMATION OF THE PANCREAS.*

If little is known respecting the morbid affections and conditions of the pancreas, it is partly because the gland, like the other salivary glands, is little prone to disease; and partly because its situation and other circumstances have conspired to render examinations of its state after death comparatively unfrequent. Inflammation of the pancreas has not been described by Baillie, Meckel or Andral. Portal pronounces it of common occurrence, but probably the assertion is not founded on satisfactory grounds. The following case is looked upon by Mr. Lawrence as an instance of the affection in question. Mr. L. was not requested to see the patient until thirty-six hours before her death; she was attended during the progress of the disease by a very intelligent general practitioner and two physicians. The history of the case is given in the words of the former, nor do we see that it admits of abridgement.

Case. “At the time Mrs. — married, she appeared to be in good health. When she was between five and six months advanced in pregnancy, she lost her usual healthy appearance, and gradually became very pallid. This change I observed on occasionally meeting her in her walks from her own to her mother’s house, and on enquiring generally after her health, her answer invariably was, ‘I am quite well.’

About a month previous to her confinement, I, for the first time, was desired to see her professionally. She was then suffering from a severe attack of catarrh,

* Med. Chir. Trans. Vol. XVI. Part I.

accompanied with an incessant, irritating cough; it was attended with very little fever, her pulse, in frequency, being but little above the natural standard. This complaint yielded in about ten days to the usual remedies, when she declared herself to be quite well, and during its continuance no symptom was complained of that was not strictly catarrhal. Her skin was then completely bleached, and the prolabia colourless. I did not see her again until the 29th of January, the morning on which her labour commenced; she then looked and felt extremely exhausted, and I was anxious as to the result of her labour. On making the usual enquiry I found the presentation natural, the pains returning at pretty regular intervals; and she was delivered of a healthy female child. The placenta was expelled by the contraction of the uterus five minutes afterwards, and she did not, during the whole labour, lose two ounces of blood. The night after her labour was passed without pain; she was tolerably tranquil, but got little sleep. It was evident on the third day after her delivery, that although the labour was comparatively easy, she had suffered much from the exertion. She felt so exhausted that she was constantly calling for *sal volatile* to smell, and occasionally to take internally, in order to prevent fainting: she sighed deeply and frequently. The least attempt to raise her head from the pillow produced a violent beating in the temples, but it subsided after a few minutes of perfect quietude. Her pulse was feeble and irritable, at about eighty-six beats in a minute. The bowels were rather relaxed. She was very thirsty, and had been so for three months previous to her delivery.

On the fifth day after her confinement, Dr.——saw her, and he repeated the examination I had previously made, by pressure with the hand over the whole abdominal cavity, in order to discover if there was tenderness in any part, but our patient declared most positively, she felt neither pain nor soreness from the pressure. A similar examination was made some days afterwards with the same result. The feeling of exhaustion continued to increase, but she

never complained of pain till about a week before her death, when, on pressing the abdomen, a slight uneasiness was felt about the situation of the *caput coli*. This was noticed the following day by Dr.——, who directed a mustard poultice to be applied to the part. About five days previous to her death the stomach became irritable, and nothing but rennet whey in small quantities was retained. She died exactly five weeks after her delivery.

I should observe that I do not recollect to have heard of Mrs.——suffering severe pain in the epigastrium till it was mentioned by her mother after her death: she certainly never named it to me herself, and it does appear somewhat extraordinary that, when it existed, it should not have been thought of sufficient consequence to call for medical assistance."

We should observe that the mother of the lady stated that she had been singularly troubled with thirst during her pregnancy, that the pain was occasionally very severe, and referred exactly to the situation of the pancreas.

Sectio Cadaveris, thirteen hours after death.
The internal parts of the body were still warm, the external parts blanched. The membranes, the thorax, and abdomen, and the viscera, with the exception of the spleen and pancreas were pale and almost bloodless. The cellular texture round the pancreas and duodenum, the omenta, the root of the mesentery, the mesocolon and appendices epiploical of the arch of the colon were loaded with serous effusion.

The pancreas was throughout of a deep and dull red colour, firm to the feel externally, and when divided the lobules felt firm and crisp. After the gland had been wrapped in a cloth for forty-eight hours (the weather being very cold) the hardness disappeared. There was some serous effusion into the pia mater of the brain, the vessels of which were moderately full.

We know not whether the case was satisfactory to Mr. Lawrence; it certainly is not so to us. Granting that the appearances discovered after death were really produced by inflammation of the pancreas, still

that inflammation had not proceeded to disorganization of the gland, to suppuration, ulceration, nor even to consolidation ; nor is there, on the face of the report, any evidence to prove that its secretion was not and could not be performed. So far as we know, the pancreas is not absolutely essential to life ; at all events, chronic inflammation of its structure which left no trace save redness behind it, can hardly be thought capable of producing death. We cannot look on the case as satisfactory, for the existence of no other morbid alterations of consequence throws little light on the enquiry. At the same time the profession will feel obliged to Mr. Lawrence for publishing the particulars.

XXXIII.

GLASGOW ROYAL INFIRMARY.

SEM-ENNIAL REPORT. By Dr. PERRY.*

THIS report opens with the following statements. At the present time they may excite more interest than the most recondite speculations or surprising cases.

"The surgical duties of the Glasgow Royal Infirmary are committed to the care of four surgeons, two senior and two junior, each of whom, till about the year 1826, took them wholly upon himself for a period of three months, the others only attending when called in cases of consultation, or to operations. About the period mentioned, (the number of surgical patients having increased,) it was thought advisable that two surgeons should attend daily, each having the same number of wards, attending the waiting room, and admitting patients, week about, their period of attendance being extended to six months. This was a decided improvement upon the former system, giving the surgical attendants more time, to witness the result of a plan of treatment they might think proper to adopt.

In 1820, a law was passed, making it imperative upon the attending senior and junior surgeons, to give clinical lectures upon the cases under their care during the winter, and their period of attendance was extended to 12 months ; the two surgeons who are elected in August attending only the consultations and operations till next May, when they commence their daily attendance, and continue till the ensuing May, when they give place to their successors, continuing to act as consulting surgeons till 1st November, when they cease to have any thing farther to do with the hospital, and cannot be re-elected for the two following years.

This was a still farther improvement ; it is a plan of attendance highly liberal, conducive to the interest of the Infirmary, which it extends among the profession—useful to the profession itself, as it excites emulation amongst its members—diffuses more widely surgical knowledge—gives to the student, who must see the house for two years, an opportunity of witnessing a greater variety of surgical treatment ; and prevents all the evils of the close or monopolizing system. And its good effects are apparent, for it may, without vanity, be affirmed, that in no city in the kingdom, is surgery more ardently studied, or more successfully practised, than in Glasgow.

For the first twenty years after the commencement of the Glasgow Royal Infirmary, a similar system prevailed in the election of the Physicians or *medical* attendants, who, after having served for two years, retired, and were not again re-elected for two years, if others could be found to fill the situation ; but the medical attendants being confined to what are called *pure physicians* who act as consulting physicians, that is, Doctors in Medicine who never acted as general practitioners, or, who having done so and failed, had given up the surgical or obstetrical department of the profession ; or what amounted to much the same thing, if this had left them, they became *pure physicians*, and were considered eligible to serve as physicians to the hospital, while the general practitioner, whose every day busi-

* Glasgow Journal, No. XV.

ness it is to attend to all cases of disease, and who, of course, enjoys a more extensive opportunity of acquiring practical knowledge and experience, was excluded.

It is understood, that the present enlightened managers are about to put an end to this close system, and it may therefore be expected that an attempt will be made to set up the cry, that 'the profession is in danger,' and 'that nothing but ruin and revolution may be expected to follow such a rash and violent innovation;' that it is a blow aimed at the existence of the *genuine* physicians, 'calculated to level all distinctions in rank,' and uproot established privileges, hallowed by time; that it is an 'unwarrantable interference with vested rights,' 'contrary to the constitution, and the practice established by experience;' that it is an audacious attack upon a system which has hitherto 'worked well;' that 'it is, in fact, not reform, but revolution,' and can be looked at in no other light, 'than rapacity and robbery on the part of the general practitioners,' and a change which, by letting in a host of unqualified persons to act as medical attendants in the hospital, must be followed by the utter ruin of the profession, and of the best interests of the Infirmary.

The Directors will no doubt answer all this, by asserting that by the original charter of the Royal Infirmary, they are not restricted in their elections to *pure* physicians, but only to those they consider best qualified to fill the situation; that they believe that the education of the M.D.'s who act as general practitioners, is at least equal to that of those who act only as physicians, and that from their being daily in the habit of attending to every variety of medical practice, they must have at least equal, if not superior knowledge, and experience of diseases, to those who are only called to visit and consult in extreme cases, chiefly with a view to satisfy those who are still so much under the influence of prejudices, as to suppose that there is a charm attached to the term physician, which gives those who assume it a kind of second sight; but that such notions are now confined to an an-

tiquated race, 'are contrary to the spirit of the age,' and must soon disappear before the 'light of liberalism' and the 'march of intellect;' and that they, the managers, are quite capable of forming regulations, by which those without experience will be prevented from getting into the situation of medical attendants of the hospital."

INJURIES OF THE HEAD.

Five severe cases of this description were admitted under Dr. Perry, from November 1830, till May 1831.

Case 1. B. C. labourer, was admitted on the 20th May. At 5, p.m. of the 19th he fell, whilst intoxicated, from the top of a stair ten feet high. When raised he was quite insensible, and blood issued from the right ear. On admission he was comatose, and when loudly spoken to merely uttered some indistinct murmurs—eyes turgid—pupils slightly dilated—breathing natural—pulse 92, of moderate strength—no external injury of skull detected. He had been bled previous to admission. Cold lotions, leeches, purgatives, &c. were employed, but he lay with little change till the 22d, when he died.

Dissection. Over both hemispheres of the brain, beneath the dura mater, and at the base of the skull there existed a large quantity of coagulated blood. The brain was more vascular than natural. The anterior and left middle lobes were extensively and deeply lacerated, the torn parts filled with coagulated blood, and the medullary substance around this of the consistence of pulp. Several ounces of serum beneath the cerebellum, and a little in the lateral ventricles. The squamous portion of the temporal bone and greater wing of the sphenoid, were fractured horizontally, while another fracture took a direction along the petrous portion and sella turcica.

Case 2. J. S. æt. 35, admitted June 6th, in a state of complete insensibility, with stertorous breathing; pupils, particularly the right, dilated; bleeding from right ear

and nostrils; extremities cold, pulse 66, weak and irregular; over superior posterior angle of parietal bone, a firm swelling of the size of half-a-crown, with small puffy tumours at outer canthus of both orbits; no fracture felt. He had been knocked down in the morning by a blow from a fist, and fell on the right side of the body on the pavement. When raised he was insensible, and so he continued; he had been bled. He died 14 hours after the receipt of the injury.

Dissection. "Skull found fractured below tumour on right side of the head. Fracture extended from about the centre of the impression made by temporal muscle on parietal bone, to the middle of the squamous portion of the temporal bone, where it divided, one division going downwards and backwards to the middle part of the mastoid process, when it then ran forwards to the meatus auditorius externus; the other division of the fracture ran forwards and inwards, to foramen lacerum anterius. A portion of the parietal bone was comminuted and slightly depressed. The walls of the cranium, particularly the right parietal bone, were unusually thin, not half the thickness of an ordinary skull, and, when examined by the light, unusually diaphanous. Betwixt the parietal bone and dura mater, was a layer of coagulated blood, occupying a space of four inches square; the middle artery of the dura mater was ruptured, and a layer of blood effused betwixt the dura mater and tunica arachnoidea, covering the whole of the right hemisphere and a portion of left; about half an ounce at base of brain. The substance of the brain was healthy."

Case 3. J. Corbett, æt. 25, admitted at 7, a.m. of the 9th June, having been found at 4, a.m. lying in a state of stupor below a working steam-engine. The scalp on the right side of the head was separated from the muscles, so as to form a semicircular flap. The skull was fractured, but not depressed, about the posterior inferior angle of the parietal bone, the fracture appearing to extend over the crown of the head and

downwards under the right temporal muscle. Immediately over the left temple was a puffy swelling, and under it apparent depression of bone. The left eyelids were much ecchymosed, the left clavicle fractured, and on the left side of the chest was a severe lacerated wound. He lay in a stupid state, was easily roused, but could give no distinct answers to questions. The right pupil dilated but contractile, the left not visible from ecchymosis; no vomiting, breathing natural, pulse 96 and soft. At 9, a.m. it was determined in consultation to trace the fracture further; it was found to extend towards the base of the skull; on puncturing the tumour on the left side the bone was thought to be depressed. Nothing further was attempted.

On the 10th he appeared more sensible, but rather restless, without heat of skin. *Hirud. xij. capiti—calomel, gr. x.* He was purged, and on the 11th he was still more sensible, without fever. On the 14th the puffy tumour on the left temple was gone, and there was no appearance of depression, and the scalp-wound was suppurating. On the 18th a piece of bone, the size of a shilling, was denuded. The patient was now nearly sensible, but irritable, and voluntarily left the hospital. Two months afterwards he returned in good health, the portion of bone having exfoliated and left a space as large as a shilling, when the pulsations of the brain were seen. The treatment during his stay in the hospital had chiefly consisted in the exhibition of purgatives, and the application of cold lotions to the head.

"It is only necessary to place these cases in contrast, to make them interesting, as showing the difference betwixt compression of the brain and concussion. The first is a well marked case of concussion, joined with a certain degree of compression. The second a case of pure compression, and the third a case of pure concussion, though from the manner the blow appears to have been received, and the extensive fracture, compression might have been expected to exist. The last case shows, also, how little medical or surgical interference is necessary, when the constitution is otherwise good—

here nothing was done except keeping the bowels open, and watching carefully the first appearance of inflammatory symptoms to act vigorously. This was fortunately not necessary.

It may be further remarked that, in the first case, the absence of the stertorous breathing, the regularity and moderate state of the pulse, the ability, to a certain extent, to use the voluntary muscles, without the power of directing them to any object, and the excitability of the involuntary muscles, might have led to the belief that the case was one of concussion; but the blood-issuing from the ear, the loss of speech and of mind, indicated, along with this, either extravasation or serious injury of the brain, which was illustrated by the post mortem examination. While, in the second case, the complete insensibility to external impressions, the stertorous breathing, dilated pupils, irregular pulse, and coldness of the extremities, with the blood issuing from the ear, all immediately following the injury, indicated complete compression of the brain, and consequently the nearly total suspension of the action, of both voluntary and involuntary muscles. In the third case, though the patient lay for some days in a stupid state, he could easily be roused. Though incoherent, the action of the voluntary and involuntary muscles was perfect, as shewn by his exertions, and his getting out of bed when he felt the inclination to void urine. It will be remarked that, in the first two cases, the patients had been bled previous to admission, immediately after the receipt of the injury. This practice cannot be too severely reprobated, as there is no doubt, that in many cases, it has the effect of sinking the patient irrecoverably. It is true, that in the cases detailed, nothing could have saved the patients, but it might have been otherwise. In the third case, this practice might have been followed by serious consequences."

We hope that Dr. Perry will continue to favour the professional public with what cases of interest may fall under his observation.

XXXIV.

AXILLARY ANEURISM SUCCESSFULLY TREATED BY TYING THE SUBCLAVIAN ARTERY.
By Mr. CROSSING.*

THIS is the second case of the kind related in the last volume of the Medico-Chirurgical Transactions. We shall mention the particulars very briefly; for, thanks to the progress of modern surgery, such cases are now "plenty as blackberries."

Case. A stout muscular man, æt. 46, was admitted into the Parochial Infirmary at Devonport, June 10th, 1830, with the following affection. There is a diffused pulsating tumour, situated immediately under, and closely in contact with, the right clavicle; extending to the cartilage of the fifth rib, stretching into the axilla, and over the point of the shoulder. It has a very tense, elastic feel, and the pulsation is generally rather obscure, but at other times is so distinct as to be seen at a considerable distance from the patient. The tumour is not compressible, but the pulsation can always be stopped by pressing on the artery above the clavicle. The arm from the shoulder to the extremities of the fingers is swollen to an enormous size; is benumbed, and has lost all power of motion. The pulsation at the wrist cannot be felt, and the arm is kept nearly at a right angle in consequence of the magnitude of the swelling in the axilla; the pectoral muscle and integuments covering it being stretched to the greatest extent. He is always in pain, and at times to a most agonizing degree; is unable to lie back in the bed, but is continually in a sitting position, with the arm supported on a pillow, and the body bent forward. His countenance is marked with great distress.

Thirteen weeks previous to his admission he was attacked, after exposure to cold as a fisherman, with a little tumefaction above the right elbow-joint, and pains supposed to

* Med. Chir. Trans. Vol. XVI. Part II.

be rheumatic. A month after this he discovered a tumour, the size of a walnut, midway between the clavicle and tendon of the pectoral muscle, which in a fortnight attained its greatest size. Mr. Crossing bled the patient occasionally and put him on a low diet. On the 23d of June, having obtained the sanction of Dr. Thomas, and Messrs. Lower, Williams, and Baldy in consultation, he proceeded to the operation.

"The patient was seated in an arm-chair, the head directed to the left side, and supported by Mr. Buchan, one of the gentlemen who kindly gave me their assistance. The integuments over the clavicle being stretched upon the chest, I commenced my incision near the sternal attachment of the mastoid muscle, and cut freely on the bone for about three inches and a half; thus dividing at once the integuments and platysma myoides. The parts being now allowed to retract, left the lower margin of the incision half an inch above, and running nearly parallel with, the clavicle; and exposed the jugular vein to a considerable extent, which was easily drawn aside, and kept out of the way with a blunt hook. The cervical fascia was next carefully divided from the clavicular edge of the sterno-cleido mastoideus to near the extremity of the wound, which brought into view the omo-hyoideus. This muscle instead of forming a triangular space, as it does in most instances, with the scalenus anticus and clavicle, ran in a line with, and just above, that bone. Finding this rather unusual course of the omo-hyoideus an impediment, I passed a director under, and divided it. The knife was now laid aside, and the remaining part of the operation finished with the fingers, and a common director. Some loose cellular membrane, and a large fatty gland being removed, the artery was found immediately below this substance, and three considerable branches of nerves passing over the vessel, and in close contact with it. These were separated, and the ligature passed under it.

This part of the operation I found the most difficult. It required considerable force and care, to pass the point of the needle under without injuring the vessel, or

separating it to a greater extent than is desirable, from its surrounding connexions; but using Weiss's ingenious instrument, both these injurious effects were obviated, and the ligature brought up from the eye of the needle with great ease. I then raised the artery, and finding the pulsation of the tumour cease and nothing besides included, tied it with a double knot just before it passes over the first rib. One end of the ligature was cut off close to the artery, the other left hanging from the wound, the edges of which were now brought together, and secured with one suture and adhesive straps. During the operation, which was borne with great fortitude, two arteries were divided, and immediately taken up; and the patient on the whole did not lose more than two drachms of blood. From the time of leaving his bed to his return, a period of twenty-five minutes elapsed."

All went on well after the operation, and on the 2d of July the wound was healed, with the exception of a small space where the ligatures were. On the 6th one of the ligatures on a small artery separated, and in the evening slight hæmorrhage took place. He was bled, and sore throat with fever supervening, the bleeding was required twice more. From this time nothing of consequence occurred. The ligature on the subclavian did not come away till the eighty-fifth day. In December, 1830, when the last report is given, the man's general health was as good as it could be, the circulation throughout was perfect, and nothing of the tumour was left but a little thickening in the aneurismal sac, along the edge of the pectoral muscle. We think that the case altogether is highly creditable to Mr. Crossing.

XXXV.

AORTIC ANEURISM BURSTING INTO THE
ESOPHAGUS. By S. COOPER, Esq.

Case.—John Backhouse, æt. 38, a muscular man, and axletree maker, applied at the

Bloomsbury Dispensary on the 11th Feb. 1830. We cannot abridge Mr. Cooper's short statement, and his observations are so much to the point that we are disposed to insert them.

"The patient had a strongly pulsating tumour, about five inches in diameter, very prominent, situated to the left of the dorsal vertebræ, and extending under the basis of the scapula, which was thrust considerably outwards by it. He complained of palpitations, oppressed breathing, and bloody expectoration. By means of bleeding, low regimen, digitalis, purgatives, and quietude, he was so much relieved in three weeks, that he was able to resume his work, which, laborious as it was, he continued regularly, and without difficulty, until the 16th of Sept. when he vomited up suddenly nearly three quarts of blood. He immediately fainted; but revived, and afterwards voided a large quantity of blood from the bowels. On the 27th of September, feeling himself even better than he had been before the loss of blood, he returned once more to his trade, and continued his labour, without interruption, until the 6th of November, when, finding himself indisposed, he remained at home, and sent to the Dispensary for medical assistance. Dr. Richard Pinckard and Mr. Miller, who now visited him, found him much reduced, weak and languid, with a feeble pulse. They were surprised, however to find, that the large external tumour was no longer visible, though its pulsations were yet distinguishable, when the fingers were firmly applied to the part.

November 9th. After having vomited up rather less than a pint of florid blood, the patient suddenly expired.

November 11th. The body was opened by Mr. Miller, in the presence of Drs. Pinckard, Mr. C. Griffith, and myself. The heart and lungs were healthy. The aorta was found to have given way, a little below its arch. The aneurismal sac, which was ample, was behind in contact with the dorsal vertebræ and the ribs; but the main portion of it extended between the diaphragm and the left lung, over the edge of which a prolongation was thrown in the form of a tu-

mour, of about the size of a lemon. All the sac, situated under the left lung, and upon its edge, was filled with solid fibrine, arranged in concentric layers, the outer of which were particularly firm, resembling boiled meat. The size of the whole mass of fibrine was equal to that of a half-quarter loaf. Towards the spine, the sac contained blood, some of which was in a fluid state. Here, also, the aneurism had formed an excavation by the absorption of the spinal ends of the sixth and seventh ribs, and of the transverse processes, and a considerable portion of the bodies of three dorsal vertebræ. The left lung, though of a healthy colour and consistence, had evidently been seriously compressed. In the œsophagus, an ulcerated opening, not quite so large as a sixpence, communicated with the cavity of the aneurism. This aperture, through which the fatal loss of blood had occurred, as well as the earlier profuse bleeding, was on a level with the division of the bronchiæ, to which the sac was intimately connected by adhesions. In the stomach, three pounds of coagulated blood were found, besides several ounces of serum, and the duodenum contained another pound of blood.

In this case, the following circumstances seem to me most worthy of note.

1st. The patient's having survived the first bursting of the aneurism from the 16th of September until the 9th of November, when a second copious hæmorrhage took place, and proved fatal. He lived, therefore, nearly eight weeks after a communication had been formed by ulceration between the aneurismal cavity and the œsophagus, and this notwithstanding his having followed, during a considerable part of the time, the laborious occupation of a wheelwright. No doubt, the fainting, induced by the first profuse hæmorrhage, was the means of saving him on that occasion by reducing the force of the heart's action, and promoting the formation of a coagulum directly over the aperture, that made the communication between the aneurism and the œsophagus.

2dly. The subsidence of the external tumour, following the first copious loss of

blood, and probably in a great measure, produced by it.

3dly. The displacement of the basis of the scapula by the aneurismal tumour, when the disease was prominent and conspicuous by the side of the spine. I have never seen another aneurism of the aorta that had this effect; but, the particulars of one example of this removal of the scapula from its right position, by the protrusion of an aortic aneurism, were transmitted to the Academy of Medicine at Paris, by Dr. Lenoble, of Versailles.

4thly. In the case now related, the pathologist cannot fail to admire the extraordinary efforts made by nature to bring about the cure of the disease. For this purpose, the greater part of the aneurismal cavity had been filled up with successive layers of compact fibrinous matter. In fact, the only portion of the sac, not occupied by this substance, was that towards the vertebræ and the œsophagus."

XXXVI.

PHILOSOPHICAL PHYSIOLOGY. By M. BLAUD, M. D. 3 vols. 8vo. 1830.

[Review.]

Dr. BLAUD, who is a clever physician, and chief medical officer of the hospital Beaucaire, has published an elementary system of philosophical physiology, which will probably excite more interest in France than in England, on two accounts—its spirituality, and its opposition to Broussaism. M. Blaud attempts the study of life as connected with an immaterial soul—of organised structures as connected with intellect. He blames the physiologists for not availing themselves of the light of metaphysics—and he equally censures the metaphysicians for overlooking the assistance of physiology. He himself proposes to unite the two studies. One of his volumes is devoted to an investigation of the intellectual faculties, the material organs, and the condition of the existence of man. We can do little

more than point out the results at which he has arrived.

The faculties of man are supereminently intellectual and moral. He thinks, wills, speaks, acts, believes, hopes, foresees, invents:—he is born for society. The author then examines the fabric of man, and finds it composed of material organs, "whose various functions combined constitute life." The nature of life escapes our investigation; but yet he judges it to be material, because it is perishable, and cannot apparently exist except in some mysterious connexion with matter. But if the principle of life be material, it is not so, according to our author, with the intellectual faculties of the soul. The soul is always denominated by him MAN *par excellence*. He argues that it is impossible for the intellectual faculties of man to belong to the encephalic apparatus, or brain. He denies that the brain can think, compare, judge, foresee, and make all those combinations of complicated operations which we see. The brain, he remarks, is a material organ composed of various parts, and too heterogeneous to perceive with *unity*. It is a complicated organ, and every idea, every perception is a unity—every image, every sensation is simple. This is the first cause of incompatibility—the first argument of the author.

II. Perception, says he, is active, voluntary, free. *Attention* is a free act of great importance. Abstraction is a work of choice, by which the soul or spirit concentrates its powers and discrimination on a body, on the quality or attribute of a body—on an idea, to the exclusion of all other subjects. In such an operation there is perfect freedom of choice; but the brain is a passive organ, which receives impressions through the senses without the power of quickening, retarding, or suspending the said impressions. This is another incompatibility, according to our author.

III. M. B. cannot imagine that the brain can perceive or think by means of motion, imprint, secretion, or any kind of irritation.

None of these movements or imprints have ever been observed, and therefore they are gratuitous assumptions without any proofs.

IV. But supposing that the brain received and discerned the impressions which are transmitted by the senses—real impressions, commemorative images of material objects, how is it to receive from words a true image of real objects, of which these words express the memory, the nature, or the attributes? Can a mass of organized matter transform a simple vibration of the tympanum or chordæ vocales, a motion of the tongue or lips into real objects, or into abstract thoughts expressed by articulate sounds?

V. "I am conscious," says M. Blaud, "that I perceive. I perceive, therefore, my own personal impressions. But can such an action appertain to the encephalon? In such case, the encephalon must re-act on itself. Matter is incapable of such re-action. Organs act and re-act on each other, in consequence of impressions received from one another; but this kind of re-action is free, spontaneous, arbitrary."

VI. Besides our perceptions often appear independent of actual impressions. Our presentiments, fears, hopes, are often altogether unconnected with any sensations at the moment.

For these and many other reasons M. Blaud concludes that it is not the brain which conceives ideas or appreciates sensations—which compares, judges, remembers, or imagines. "None of the faculties of man reside in the encephalic mass. Man (by which M. B. designates the soul) is a being essentially immaterial; though it cannot exercise its faculties but by the medium of this encephalic mass. In this respect it is, in a certain degree, dependent on or connected with the brain."

These sentiments have long been maintained in this country; but they have been very scarce in France since the revolution, 1789. Some of the French critics insinuate that this book was composed for a certain religious society in France, called "LA SOCIÉTÉ DES BONS LIVRES," from which so-

ciety it gained a prize; and that it is now put forth for general circulation, without any allusion to the original purpose for which it was designed, and without any mention of the honours which it gained. These are rather suspicious circumstances, and may be connected with the recent downfall of regal and papal fanaticism in the "GRANDE NATION." The same critic concludes thus:—"the work which we announce has for its author a studious man—a physician zealous in his profession—an intelligent writer, whose misfortune it is to have passed too much of his time far from capitals, *the only places where alone good books can be constructed.*" These reflections will sound rather strange in English ears, when we remember the works of a Currie, a Darwin, a Parry, a Hey, and a hundred other authors. Were the metropolitan writers on medicine, indeed, to be ranged in comparison with the provincial, of England, the former would cut a very sorry figure. Yet the observation of the French critic is, no doubt, correct, as far as France is concerned. PARIS IS FRANCE—and France is only an inconsiderable appendage.

XXXVII.

FACIAL NEURALGIA—CATALEPSY.

I. *Facial Neuralgia cured by Spontaneous Ptyalism.* By Dr. CARRESI.

A FEMALE, aged 52 years, became affected with severe facial neuralgia after exposure to cold. It continued for four months, and so completely resisted every remedy employed, that she gave up medicine, and trusted to Nature. In about a fortnight after this determination, a spontaneous flow of saliva took place, great in quantity, and sweet as honey in quality. It increased so much in three days that it appeared to flow from the stomach rather than from the salivary glands. During this extraordinary ptyalism, the bowels were constipated, and the urine very scanty, as

well as all other secretions. The facial pain diminished in proportion as the salivation increased:—both ultimately ceased.—*Annali Universale de Medicina.*

II. CATALEPSY ACCIDENTALLY CURED.

In the journal above-mentioned, for October, 1830, there are related two cases of catalepsy, one in a female, the other in a male, which yielded to accidental hæmorrhage—in one case, from a cut on the head—in the other, from epistaxis. The first case was that of a young girl, ten years of age, who became cataleptic, the paroxysms returning at shorter and shorter intervals, and resisting all medicines. In one of these attacks the girl dashed her head against a sharp stone, when a profuse hæmorrhage instantly ensued. This hæmorrhage not only put an end to the attack, but prevented all returns of the disease.

The other case was that of a young farmer, 20 years of age, and of a melancholic temperament, who, after some severe mental distress, became affected with cataleptic attacks, complicated frequently with delirium and somnambulism. Repeated bleedings, leeches, baths, blisters, and various other means were employed in vain. At length a profuse nasal hæmorrhage took place spontaneously, and put an end to the attacks.

XXXVIII.

CASES OF AIRY TUMOURS OF THE UTERUS.

In the *Opusculi della Societa Medico-Chirurgica di Bologna*, Vol. IV. are two cases of gaseous enlargements of the uterus, which we shall here abridge.

Case 1. A plethoric female, in the prime of life, being suddenly exposed to cold during menstruation, the catamenia were suppressed, and an acute pain was soon afterwards felt in the region of the uterus, as well as an enlargement of that organ, which could be felt above the pubes, with pain in the groins. These phenomena were usher-

ed in by a rigor, succeeded by febrile reaction, heat, thirst, &c. On examination, the uterus was found, by percussion, to emit a hollow sound. The female was bled largely from the feet, while emollient fomentations, lavements, &c. were employed. Nevertheless the volume of the uterus enlarged, and became more globular. Leeches were then applied to the pudendum without any advantage. The symptoms augmented in intensity, and the uterus was again examined per vaginam and above the pubes. The finger being introduced into the os uteri an explosion of gaseous fluid took place of fetid odour. The size of the abdomen was quickly diminished; but soon afterwards regained its former dimensions. A tube was then introduced into the womb, giving exit to an immense quantity of gas, with some clots of blood. This state continued some days, when all the phenomena subsided and disappeared.

GAZEOUS COLLECTION IMITATING PREGNANCY.

Case 2. A female, 40 years of age, and who never had borne children, began to present signs of pregnancy. The menses, which had hitherto been very regular, now stopped, and the os uteri, on examination, was found to be firmly closed. The patient experienced none of the sickness or other usual inconveniencies of pregnancy. Nevertheless the uterus, towards the fifth month, reached the umbilicus, and was circumscribed. Towards the end of the sixth month all hopes of pregnancy vanished by the explosion of a large collection of gas from the uterus, upon which the swelling of the abdomen disappeared, and the patient regained her natural state of health.

XXXIX.

CASES OF SUCCESSFUL SURGICAL OPERATIONS. By Dr. C. BRYCE.

Dr. B. ACCOMPANIED Lord Cochrane to

Greece. At first, opportunities of practice were promising, but subsequent events diminished those opportunities considerably. The following cases which occurred are of sufficient interest and importance for Dr. B. to narrate and for us to report upon.

CASE 1. Amputation at the Shoulder-joint, with a portion of the Clavicle and Scapula.

"Camp of the Phalerus. 4th May, 1827. Soldier, æt. 19, spare habit.

Half an hour before his presentation, a cannon-ball had passed across the breast; struck the left shoulder, removing two inches of the humeral extremity of clavicle, the anterior half of the head of humerus, the acromion process, and part of the spine of scapula. The integuments around the joint were extensively destroyed; but the parts beneath the clavicle, and the muscles forming the arm-pit were sound, or simply bruised. The hæmorrhagy was trifling, and the patient, though depressed, had recovered from the first shock of the injury, and cheerfully disposed himself to operation. After cleansing the wound of splinters and coagulated blood, so as to ascertain the full extent of the injury, it was determined upon, to remove with the saw, the fractured extremities of the clavicle and scapula; to turn out the shoulder-joint; and, by forming a flap from the axilla and inferior surface of the arm, bring it to correspond with the integuments above, so as to cover the cavity. Any apprehension of bleeding from the axillary artery was quieted, by ascertaining the ready command an assistant had over the subclavian. Hey's saw was conveniently applied, to fulfil our first intention: depressing the elbow towards the side, a Lisfranc knife was introduced betwixt the glenoid cavity and fragment of head of humerus, and carried close to the bone, near an inch downwards, and then directed outwards to form a flap. The axillary artery was secured with little loss of blood; and the operation was completed by removing the lacerated edges of the upper portion of the wound, and adapting these in some degree to the form of the flap. No stitches were necessary, as with

a little management straps retained the integuments in suitable juxtaposition. The usual dressings and bandages were applied. The lad bore the operation well. No bad symptom had supervened on the third day, when the outer dressings were removed, and the wound not appearing irritated from tension, the plaster was not touched. On the fifth day the dressings were entirely changed, little pus had formed, and the pain and swelling of the parts were inconsiderable. The edges of the wound had either united, or the interstices showed healthy granulations. On the following day he was removed to a general hospital, where he recovered steadily, under the treatment of M. Trebier, the surgeon there."

In the second case related by Dr. Bryce the head and neck of the humerus were severely injured by musket-shot, whilst the vessels and soft parts remained comparatively untouched. The head and shattered portion of the bone were excised, and all was going on well, when, in the sixth week, the patient was attacked with enteritis from sleeping in the open air, and died of that disease. The state of the limb was not examined after death, but before that event the patient could use his fore-arm and even support the weight of the limb. Dr. Bryce saw this operation performed in Vienna with success. The arm proved so serviceable to the patient that he afterwards acted as waiter in a coffee-house.

CASE 3. Successful Amputation at the Hip-joint.

Pireus Bay. May 6th, 1827. A soldier, æt. 23, was wounded by a 6lb. shot at the disastrous battle of Athens. The integuments and muscles of the hip and thigh were very extensively torn and removed. The trochanter, neck, and 4 inches of the femur were shattered, the femoral vessels were untouched, and the mass of flesh on the inside was uninjured. The bleeding was inconsiderable, the depression not extreme. The patient was removed to hospital, and it was determined in consultation to remove the limb at the hip-joint which was done in the following manner.

"The plan of proceeding was readily determined on, and executed without difficulty, in the following manner. Firm pressure being made by the cross-piece of the screw of a tourniquet and a pad on the external iliac, immediately above Poupart's ligament, a convex incision was made across the highest part of the thigh and hip, passing from the inside of the sulcus of the blood-vessels, to an inch and a half behind the trochanter, including in this convexity and extent the torn superior circumference of the wound, and exposing the capsular ligament of the joint.

The femoral artery was now secured above the branching off of the circumflex and profunda. The capsule and round ligament were next divided, the acetabulum exposed, and the head of bone drawn out. The amputating knife was again taken, and, observing the particular shape of the upper incision, a corresponding flap was formed, by a double stroke of the knife, from the inner and under part of the thigh, in which the fractured portions of the bone, and the contused and lacerated soft parts were included. The arteries were now secured, and the wound cleared of blood. Notwithstanding frequent ablutions of the wound with cold water there existed a troublesome oozing of blood, without our being able to detect its sources, by which, and the fatigue of the operation, the patient became exhausted.* Wine and assuring language restored him somewhat. It was evidently dangerous to dress the wound immediately : and leaving therefore its surface uncovered, exposed to the air, (a method frequently had recourse to in other similar cases,) we proceeded to another amputation. By this management the wound became so dry, after a few minutes, as to allow the operation to be satisfactorily finished. The flap covered very well the face of the wound, and was easily retained in proper contact by strips of adhesive plaster. The common dressings were applied, and a double-head-

ed roller was carefully adapted to the peculiar form of the hip. An anodyne was exhibited, and six hours after the operation he was composed and had slept ; no pain nor bleeding from the wound."

No bad consequences followed, and in six weeks the patient was completely cured. The superior success of operations in Greece is attributed to the abstemious diet and simple manners of the natives.

XL.

M. LARREY'S MODE OF TAPPING THE PERICARDIUM.*

IN hydro-pericarditis, when it is deemed advisable to tap the pericardium, M. Larrey selects the point between the base of the xiphoid cartilage on the left side, and the united extremities of the seventh and eighth ribs on the same side. In this triangular space we may boldly make an incision, extending from the junction of the cartilage of the seventh rib with the sternum, along its inferior border, to the extremity of the cartilage of the eighth, which is closely united to the seventh. In this incision some of the fibres of the rectus and external oblique and cellular tissue are divided, when the knife comes down upon the projecting surface of the pericardium, traversing the triangular space between the first two indigitations of the diaphragm. The point of the knife must then be carefully directed a little upwards and from right to left, in order to open the pericardium without wounding the peritoneum. A small portion of the anterior edge of the diaphragm, at the point of its attachment to the posterior border of the cartilage of the seventh rib, is slightly wounded, but no vessel of any consequence is injured. The heart is less likely to be cut in opening the pericardium in this situation than in any other, because the fluid will naturally collect most at the most dependent part of the bag containing it. M. Larrey, it appears, has not performed the opera-

* "Although allowing for this casualty, there was not greater hæmorrhagy than in ordinary amputation of the leg."

* Clinique Chirurgicale, Tome II. p. 303.

tion, in this situation on the living body; it is accomplished with great facility on the dead.

XLI.

LITHOTOMY IN THE FEMALE.

IN 1796, M. Larrey performed the operation of lithotomy on a female, æt. 34, at Toulon; she was cured on the 8th day, and that without incontinence of urine. M. Larrey avoided dividing the paries of the vagina. With a grooved staff and a bistoury, he cut to right and left between the parietes of the vagina and rami of the ischia. The stone was extracted without difficulty.

Here we may take an opportunity of reviewing a very useful work, which we have not previously done. It is a System of Operative Surgery, from the pen of Mr. Hargrave of Dublin, and we have no hesitation in saying, that it is greatly superior to the production of the late Mr. Averill. We shall at once do justice to the author for a long silence, give our readers a specimen of the style and matter of the volume, and put them in possession of the various methods of performing the operation of lithotomy in the female, by the following quotation:—

“The methods by incising the bladder, to remove the calculus, are necessary to be adopted, when it is very voluminous; of these, five plans have been invented to permit the surgeon to accomplish his intentions.

The high operation. It is conducted on the same principle as in the male subject, and is less dangerous in the female than in the male, since there is very little probability of infiltration of urine succeeding to it, as it can be prevented by the introduction of a catheter into the bladder.

Lateral operation. The surgeon makes use of a straight and deeply-grooved staff, with any of the other cutting instruments that are required in the opposite sex. *First period.* The patient being secured in a similar manner as for the operation in the

male, the labia are to be separated and the staff introduced into the bladder, and the presence of the stone verified; the groove of it is to be then lateralized, by turning it obliquely downwards, at the same time that it is raised to the pubic arch, which separates the urethra from the vagina. *Second period.* The operator then passes his knife along the groove, which is also held in the lateral position, dividing the urethra into the bladder, when a gush of urine flows. *Third period.* He then depresses his hand, withdraws the knife, and cuts obliquely downwards and outwards between the left ramus of the pubes and ischium, and the side of the vagina, so as to make a free opening. *Fourth period.* The finger is then passed into the bladder, on the blunt gorget, which allows the forceps to be carried along it to seize the stone for its extraction.

The advantages of this operation consist in affording a free passage for the extraction of the calculus, without producing the risk of a permanent incontinence of urine: but it is not unattended with some danger during its performance, from the following inadvertencies: the knife, if too much lateralized, may divide the pudic artery, while if the proper degree of lateralization is not given to it, the vagina will be laid open, and vesico-vaginal fistula be produced.

The sub-pubic Operation, as performed by M. DUBOIS. After the patient is placed in the proper position, *first period,* a straight grooved sound is introduced into the urethra, the groove being directed to the symphysis pubis; which is depressed with the left hand, to separate the canal from the pubic arch. *Second period.* The operator then conducts, by the groove, a scalpel, and the superior parietes of the urethra, with the neck of the bladder, of sufficient extent to allow the extraction of the calculus. *Third period.* The instruments being withdrawn, the finger is passed into the bladder to examine the size of the wound, and to guide the forceps into it. This operation may be performed with the bistourie caché, without any previous introduction of a staff.

As the soft parts in this situation are very

lax and extensible, no impediment is offered to the withdrawal of the forceps charged with the stone: no vessels of any size are wounded by this plan, as none course in the line of the incisions.

Sub-pubic Operation, as performed by M. LISFRANC. First Period. The patient being situated as in the other sub-pubic operations, and the labia divaricated, the operator introduces an ordinary staff into the urethra, and gives it in charge to an assistant, who presses it gently downwards, and with it the urethra and vagina; the surgeon then examines in the vagina with the index finger, for the course of the pudic arteries; after which, with a common bistoury, he makes a semilunar incision, beginning on a level with the right side of the urethra, and cuts parallel to the ascending ramus of the pubes, then to the symphysis, and terminates at a corresponding point on the opposite region of the urinary canal; the convexity of this incision looks upwards, and is distant about one line from the bones and symphysis pubis. The handle of the bistoury, when making this incision, should be a little lower than the point, which divides, cautiously, the different layers of tissues till the bladder is exposed. *Second Period.* The bladder being exposed, the operator either may plunge his knife into it, and cut that viscus transversely, or he will find it more safe and expeditious, to introduce the thumb of the left hand into the vagina, and the index finger into the wound, when, by drawing gently the tissues held by them, the bladder is stretched, which can be opened either longitudinally or transversely. The longitudinal incision is parallel to the muscular fibres of the bladder, and is distant about 16 lines, or an inch and a quarter at its superior extremity, from the peritoneum, while the transverse incision is perpendicular to these fibres, and is at a much greater distance from the peritoneum.

The inventor conceives that no danger is incurred of peritoneal inflammation, urinary fistulæ, or incontinence of urine, which too often succeed to the other sub-pubic methods.

Observation. I have occasionally performed this operation in the dead subject, and cannot coincide with M. Lisfranc as to its eligibility, either in the executive part or the extraction of the calculus; the first is effected in a slow and unsatisfactory manner, as the point of the knife can be alone employed to divide the parts; the incisions into the bladder are not guided by any defined course; hence the operator is liable to open the urethra at its point of junction with the bladder, or the canal may be actually cut across, even if the incisions are well directed; the bladder is opened in the narrowest part of the pelvic outlet, so that calculi of any size can scarcely pass through it without considerable dilatation of parts almost incapable of it: it is also necessary to press the neck of the bladder and urethra downward to the vagina in a very forcible manner, to afford space for the extraction of the forceps loaded with the calculus, which will cause not alone contusion, but often very serious laceration.

XLII.

ON MECHANICAL POWER IN THE CURE OF HERNIA, PRACTICALLY ADAPTED TO PROFESSIONAL STUDENTS, AND THOSE AFFLICTED WITH RUPTURES. By Jos. Egg, &c. 12mo, pp. 38. 1831.

WE happened lately to be interested in the application of a truss to a recent hernia in a young person, and took occasion to examine the principles on which Mr. Egg's trusses are made and employed. It is hardly necessary to remind surgeons that the general principle on which trusses are constructed, is *pressure* to keep the intestine within the parietes of the abdomen, and to prevent its protrusion when any muscular exertion is used. Now we confess our conviction that the *pressure* is unnecessary, if not prejudicial; and that the grand salutary operation required is *resistance*—a very different thing from pressure. Where the pressuro is produced, as it usually is, by a

very elastic spring, it is obvious that *resistance* to protrusion is limited, and may be overcome. But suppose there was no elasticity whatever in the truss—that, for instance, an iron poker was bent round the body and accurately fitted to its circumference, so as to just touch the aperture through which the hernia descends, then there would be *resistance* to protrusion, and complete security, without any, or with very little pressure. This is the principle on which Mr. Egg fabricates and adapts his trusses, and from what we have seen, we believe he is correct and consequently successful. We shall introduce an extract or two from the little pamphlet before us.

“The principle of all trusses, which are constructed for this purpose, is pressure; and this pressure it is endeavoured to increase, or to diminish, not according to the supposed necessity of the patient, but according to what the patient may be able to bear; and, as the physical power to endure rarely equals the necessity for endurance, the mere Truss-maker has no means of adapting the power to the necessity, relief rarely, and a cure still more rarely, can be hoped for. Indeed, when a cure has, by this application, been performed, it is wholly the result of accident, without any reference to the skill either of the fabricator of the truss, or of the person who applies it to the part which requires such assistance. In point of fact, a bandage, on the common principle, has the same chance of efficacy as a truss. It may happen to afford the desired support and pressure, on the exact point where it is required; and in such an event, not only relief, but even permanent cure will be the result, unless the extreme age of the patient have deprived nature of its restorative power.”

“Herniæ, or Ruptures, demand powers as varying as themselves; but it generally happens that, in proportion to the greater pressure required to effect the cure is the extreme sensitiveness of the morbid part; so that, as its call for mechanical pressure increases, its means of endurance diminish; hence the state of the sufferer was utterly

hopeless, until the merest accident disclosed the means of affording permanent relief and cure to their present possessor.”

“Suppose the extreme case of a person afflicted with Hernia, which requires a pressure equal to the weight of fifteen pounds; when the infirmity of the part will disable the sufferer from existing, under an application which shall exceed three pounds,—what chance of relief can he, reasonably, have? Besides, every truss in common use, acts by pressure; therefore, to annihilate the elasticity of that spring, on the pressure of which depends the sole chance of relief is to convert it into a mere bandage, and that bandage utterly inadequate to effect what only it professes to accomplish.

The common truss, particularly that which is designated ‘Mechanical,’ and acts solely by pressure, is so constructed that, if its pressure equal a weight of seven pounds on the ruptured part, it presses in an equal degree upon the spine, where pressure is not only not wanted, but cannot be sustained, without the risk of very serious danger. I have been applied to by persons whose spines have been brought into an unequivocal state of decay, from the constant pressure inflicted, by this ‘Mechanical’ truss, upon the part.

Of a somewhat better description, is the truss which, being strapped round the body, is reduced to a mere bandage; for although this may compress the shape, so as to give it a wasp-like appearance, it still distributes the pressure, throughout the entire round, with some degree of equality, and is not so likely to become injurious, though its efficacy, even as to relief (much less cure), may very well be questioned; neither is it always freed from the infliction of even severe injuries.

Another truss is designated the ‘Spring Truss.’ This is likewise strapped on, as tight as the spring will permit; of course, by this method of fastening, it becomes a bandage, and, until it is fastened, the spring does not act at all. In short, the trusses, one and all (excepting only that which I have introduced, and which is solely manu-

factured by, and to be obtained from myself, act entirely by pressure, which they have no means of regulating, other than by tightening or relaxing the straps. Beyond this, they, it is true, can change the spring for one of greater power, or supply an additional spring; but all these contrivances only serve to increase the torture of their already agonised patients, without giving them any facilities of endurance, and we still are forced to recur to Sir Astley Cooper's anxious research—for a strong truss, and an easy one!"

XLIII.

ON AN INSIDIOUS FORM OF PUERPERAL FEVER. By M. LEGALLOIS, Physician to the Hospice St. Michael.

In a memoir which the author presented to the Royal Academy of Medicine, he maintained that the majority of puerperal diseases of an inflammatory nature as phlegmasia dolens, peritonitis puerperalis, &c. were occasioned by some specific or deleterious substance mixed with the blood—and secondly, that this morbid principle was lochial discharge absorbed after it had become purulent. This etiology he based on the anatomical condition of the uterine veins—on comparative pathology, and on close examination of the various phenomena. In these ideas he was confirmed by the researches of M. Dance and various other pathologists. The following observations we shall quote in an abridged form.

The Spring of 1828 was very wet, and the Summer as dry. This constitution of the atmosphere produced immense numbers of intermittents. Scarcely a day passed without applications at the Maison Royale de Charenton. In the month of August, when the heat was very great, M. Legallois was called to a female, who had been delivered a few days previously, in an easy and natural manner. The lochia were still flowing freely, and there was no local pain of any kind. The abdomen, however, was rather more voluminous than natural, but

quite void of tenderness on pressure. Every evening the female was seized with a shivering, followed by re-action, which lasted the greater part of the night. Several days were allowed thus to pass, without the exhibition of any medicine, M. L. conceiving that it was a case of the prevailing intermittent. Fearing that the paroxysms, if continued, might determine a congestion in some of the abdominal organs, our author exhibited cautiously the sulphate of quinine. The subsequent remission was prolonged beyond the usual period, and the succeeding paroxysm less severe. The quantity of quinine was increased to ten grains in the day, and ultimately to fifteen grains, without any other apparent effect than a slight amendment. But suddenly the accession became anticipated and exasperated—vomiting ensued—the epigastrium became tender, though not swelled. These symptoms continued for another day, and then a consultation was held, when it was determined that there was inflammation of the stomach, with the addition of puerperal fever. Leeches and baths were employed; but the abdomen now became distended, the vital powers were prostrated, and the patient died in four or five days from the invasion of this new train of symptoms. No dissection ensued; but the Doctor very candidly blames himself for giving the quinine too long, when he ought to have watched the local symptoms. We shall give some particulars of another case, on account of the dissection.

Case 2. A female, 18 years of age, strong and well formed, was confined in natural labour, and safely delivered, the 9th of October, 1830. The lochia flowed during two days; on the third they became pale, and on that evening she was seized with a rigor very severe. This was succeeded by strong febrile re-action, and a remission. Next evening another rigor—and the same happened every day till the 14th October, without any symptom of local affection. Nothing but diluents were given, with an emollient lavement evening and morning. On the 15th of October, the vascu-

lar action being considerable, a small quantity of blood was taken from the arm, after which the pulse rose in strength, and amounted to 120 in the minute. Still the abdomen was soft and not tender on pressure. On this day she had two rigors. 16th. She complained of great debility, and the pulse was rather weak, at 130 in the minute. For the first time pressure on the right hypogastric region occasioned deep-seated pain. The tongue was moist; and there was neither nausea nor vomiting. The rigor occurred to-day, followed by fever, and afterwards by some perspiration. In the evening all things appeared worse—the abdomen was painful—the features sunk. Another venesection which was too late, as she died the next day.

Dissection. About two pints of a milky fluid were found in the cavity of the peritoneum. The peritoneum itself was neither inflamed nor injected. The uterus was about the size of two large fists, and was capable of holding a hen's egg. The place where the placenta had been attached, was rugous and pierced by several apertures, into which a quill could easily be introduced. The veins of the uterus, the muscular tissue of the organ, the ovaries, and the spermatic veins were unaltered. In short, our author was unable to trace any vestige of uterine phlebitis or uterine inflammation of any kind. He was about to give over the investigation when, on looking at the vagina, he perceived, on the internal surface of the labia, near the posterior commissure, two lacunæ, of three or four lines in diameter, filled with a white and puriform matter. On introducing a probe into one of these he found that it communicated with one of the large veins which ran from the bladder to the vagina. This vein, and the trunk from which it rose, till it merged in the hypogastric vein, viz. during an extent of three or four inches, was completely filled with the same puriform matter observed in the above mentioned lacunæ. The veins of the opposite side presented the same phenomena, and the internal surfaces of all these vessels were found to be thickened and inflamed. The hypogastric

veins contained some clots of blood mixed with a substance similar to that already mentioned. The other particulars of the dissection we pass over, as not throwing any light on the disease.—REVUE MÉDICALE.

XLIV.

PARALYSIS OF THE LOWER EXTREMITIES.

By PROFESSOR CHIAPPA.

THE following case is curious and consolatory. A young female, of slender form but sanguineous temperament, gradually lost the muscular power of the lower extremities—and, in the course of two years, she was totally incapable of moving them. Yet, in this deplorable condition she became, by some *inadvertence*, pregnant, and, in the usual period, gave birth to an infant, without favourable change in the paralysis. She was then transferred to the CLINIQUE of Dr. Chiappa, who noted the following symptoms:—pulse small and hard—frequent cephalalgia—very little sleep—thirst—constipation—violent pain in the left scapula—also in the abdomen, to which she referred the want of sleep. The thighs, but more especially the legs were the seat of acute pain, of a burning kind. All the parts above-mentioned were extremely sensible to the least pressure. The lower extremities were in a state of extreme emaciation.

These symptoms being all taken into consideration, M. Chiappa did not hesitate to attribute them to inflammation of the spinal marrow, extending to the nerves of the abdomen and lower limbs. The treatment was shaped according to this diagnosis, and venesection was practised, while rigid diet, and all the other antiphlogistic measures were put in force. The blood was found to be highly inflamed, as much so as in pleurisy. After four bleedings, leeches were applied to various parts, and in great numbers, on the abdomen, along the spine, to the anus, &c. In the mean time the bowels were kept open by castor

oil, while antimonials, acetate of morphine, blisters, digitalis, and even nux vomica were occasionally prescribed. The patient gradually acquired power in the lower extremities, with proportionate mitigation there and in the abdomen. In process of time the patient began to walk, and, at the close of the report, was restored to perfect health. —*Annali Universali*, Feb. 1831.

XLV.

ERGOT OF RYE IN LEUCORRŒA.

IN the same Italian Journal, and of the same date, we observe a long paper from Dr. Bazzoni, on the use of ergot of rye in leucorrhœa. He details a considerable number of cases, in most of which the medicine appears to have produced decided effects. A single case, the first on the list. A female, aged 38 years, of feeble constitution, but regular in her menstrual periods, experienced some severe mental affliction at the expected time of menstruation, and was seized with severe abdominal pains in their stead, accompanied by head-ach, fever, &c. which were removed by bleeding and diluents. At the succeeding period the menses were replaced by a fluor albus, preceded and accompanied by abdominal pains and distressing sickness, which continued for five or six days. The third period presented the same phenomena, except the leucorrhœal discharge continued much longer. After this the fluor albus seemed to have become habitual, attended with pains in her loins, bad digestion, and much general debility. At this time Dr. Bazzoni was consulted, and prescribed 20 grains of the ergot of rye to be boiled in eight ounces of water, and taken in the course of two days. No inconvenience was felt from the medicine, and on the third day the leucorrhœa had disappeared. On the succeeding month the menses appeared, and continued regular afterwards.

XLVI.

POPULATION OF NAPLES.

THE OSSERVATORE MEDICO, for May, 1831, gives us rather a sorry account of the salubrity of Italy's boasted climate. It appears that the number of births in Naples, during the year 1830, was 14,267, while the deaths amounted to 15,419, leaving a deficit of 1152 in the population of the "finest climate in the world," in one year—and that year undistinguished by plague, pestilence, famine, or war! Our readers are aware that, according to Dr. Hawkins, the ratio of mortality in London is about 1 in 40 annually. In Naples during last year it was 1 in 23 and a fraction! What will the advocates of an Italian climate say to this? We believe, indeed, that the mania for running across the Alps and Apennines to bask in the brilliant suns of Italy, for restoration of health, is nearly over. It is the duty of medical men to make the non-professional public acquainted with the nature and effects of a transalpine climate, before their patients incur the fearful risk and expense of foreign travel—or rather of foreign residence. The British Isles offer facilities for travelling exercise in the Autumn far superior to the Continent—and perhaps equally conducive to health, at a much less expenditure of time and money. The day is probably not far distant when Snowdon and Ben Nevis will attract more tourists than the Simplon and the St. Bernard—when Windermere, Killarney, and Loch Lomond will vie with Como, Lake Lemán, and the Lago Maggiore. In the former routes, as much health may probably be gained, and far less money and morality expended in the pursuit!

XLVII.

FATAL CASE OF GOUT. By M. SAUVÉ.

THIS case is related in the *Annales de la Médecine Physiologique*, for April, 1831. The patient, æt. 62, was admitted into the

Hospital of the Val-de-Grace, in 1831. He had suffered much from gout previously. The articulations of the fingers and toes were swollen, and misshapen, the appetite great, the corpulency considerable. Some time after the patient's admittance a gouty abscess formed in the right foot; it was opened, and the bone was found dead. For some months there was little else complained of excepting pain in the affected foot, but at length a "gastro-enterite" was set up, the liver became implicated, and jaundice was established. In spite of all the treatment employed the patient died.

Sectio Cadaveris. All the articulations were filled with a soft whitish matter, resembling in appearance cream-cheese, which extended into the spongy substance of the bones, leaving no trace of synovial membrane or cartilage. The compact substance of the bones was brownish in colour, and the periosteum was easily detached. The muscles were of a pale red colour, the cellular tissue indurated. In the right leg were several calcarious concretions external to the periosteum, and even on the fasciæ. In the knee-joint the synovial membrane and its appendages were reddened and very soft, and a large abscess extended from within the joint upwards, between the femur and the muscles surrounding the bone, as high as the hip-joint. Of this there had been no symptom during life. On the left tibia were several deposits of cretaceous matter. A yellow very viscid liquid was found in the left knee-joint, and the condyles were covered with a radiated chalky deposit. The same chalky concretions were observed in the joints of the upper extremities, and the sheath of the tendons and the ligaments were infiltrated with the same. The heart was almost buried in fat. The mucous membrane of the stomach was of a bright red towards the cardia, of a deeper dye towards the pylorus, which was indurated and thickened. The mucous membrane of the duodenum was softened, almost ulcerated, and the marks of inflammation extended down the intestinal tube, decreasing as it descended.

XLVIII.

LA CHARITE.

CLINIQUE OF MESSRS. BOYER AND ROUX.

FROM the multitude of cases without interest, facts without value, and reflections without judgement, published in the French journals, the wearied eye turns to settle with delight on a "clinique d'hôpital." In this we find less of that imaginative feeling which distinguishes our Gallic brethren, and the spirituality of the nation appears to succumb under the influence of experience and of common sense. The cases detailed by private practitioners in France are, for the most part, utterly valueless. In that land of liberty and equality, of spiritualism and republicanism, knowledge, or at all events professional knowledge, is monopolized to a degree unknown in this island of monopolies. The Parisian, and the hospital surgeons in the great provincial towns, possess all the current information, and though they naturally share in the spirit of vague generalization and eager disposition to refine which characterise their nation, yet the facts which present themselves before them tend to sober their theories, and dash their speculations with some of that caution and deliberation which their English compeers are more prone to exercise. On this account it is, that the hospital reports, and the productions of hospital surgeons and physicians, are almost exclusively deserving of attention in the French periodicals. We need not say that with us this is far from true. We shall proceed to notice a case or two from the clinique of Messrs. Boyer and Roux.

*Fungous Tumour of the Radius—Ligature of the Brachial Artery—Amputation—Death.**

On the 5th November, 1830, a man, æt. 35, was admitted into La Charité, with a tumour, nearly the size of the fist, on the inferior and anterior part of the fore-arm.

The radial artery was thrown forwards by the tumour, which evidently increased in size when the arm was dependent. Obscure pulsation was distinguished in the tumour, which, when pressed, crackled like a snowball, and communicated to the fingers the sensation of a bony shell. The patient referred the origin of his disease to the preceding May. In squeezing a sponge he felt a crack at the lower end of the radius, soon afterwards an irregular swelling with redness of the skin, and then a distinct tumour which was punctured, but gave issue only to blood. From the symptoms past and present, it was imagined that the tumour was one of fungous hæmatodes, (fongueuse sanguine,) and that it had its origin in the cancellar structure of the radius. As pressure on the brachial artery arrested the pulsation in it, it was determined to tie that vessel, which was done on the 7th December. The pulsation in the tumour ceased; the tumour itself diminished in volume, and became hard; ice was applied, and subsequently compresses dipped in a solution of tannin with a bandage; the ligature came away from the artery on the 25th day; and appearances were so far favourable. But as soon as the patient began to use the limb the disease returned with rapidity, and assumed a more malignant aspect than before. Amputation was performed in the upper third of the fore-arm, where the parts were sound. The patient died of the effects of the amputation, (what they were is not stated;) but nothing of consequence was discovered on opening the body. On examining the amputated limb, there was found beneath the skin and the extensor muscles, which were separated from each other, a fleshy mass surrounding the inferior extremity of the radius. The external layer of the tumour was of lardaceous consistence, in the centre it was softened, cerebriiform, with clots of blood. No trace of the radius was found in the centre of the tumour, the bone being merely connected with its external layers above. Below, the tumour was separated from the articulation of the wrist by a layer of cartilage, appa-

rently that, belonging to the lower end of the radius.

This appears to have been a genuine case of fungous hæmatodes. The improvement after the ligature of the brachial artery, followed by local pressure, though singular, is not very surprising to those who have seen many cases of the disease.

CASE 2. Hydrocele and Hæmatocele—Puncture and Injection—Incision—Cure.

A man was affected with a hydrocele of moderate size, when, after a contusion of the part, its volume suddenly augmented. After a while the tumefaction became softer, but there was no transparency, and the weight was greater than that of an ordinary hydrocele. M. Roux now made a puncture in the upper part of the tunica vaginalis, when a quantity of blackish fluid escaped through the canula, and the tumour had almost disappeared. M. Roux now injected some warm water, inflammation followed, and fluctuation became evident at the point where the puncture had been made. The tunica vaginalis was now laid freely open by an incision, the wound dressed in with charpie, suppuration and granulation freely established, and the patient ultimately cured. We need scarcely say that this practice has the sanction of the most experienced surgeons in this country. Hæmatocele, to any extent, is best treated by incision of the tunica vaginalis.

CASE 3. Lithotomy for the extraction of a Portion of Gum Catheter in the Bladder.

A man, ætatis 67, was admitted into La Charité labouring under the symptoms of retention of urine. The patient was affected with paralysis of the bladder, and on the preceding night a surgeon in the town had drawn off the urine by means of a gum catheter, and left the catheter in the bladder and urethra. The instrument had retired within the urethra, and its point lay buried behind the corona glandis, when ineffectual attempts were made to extract it, and it passed in still more deeply than before, and

lay altogether in the bladder! On the patient's admission into the hospital the catheter was readily introduced, and a great quantity of urine drawn off. The foreign body was distinctly felt, and an immediate operation was urged upon the patient. On the next day the lateral operation was performed. On introducing the forceps the catheter could not be seized, when M. Roux passed his finger into the bladder, drew down the catheter to its neck, and extracted it with a pair of polypus forceps; the catheter was ten inches in length. A gum catheter was retained in the urethra after the operation. The patient died in the course of a week of "a febrile affection with general depression." No particulars of the post-mortem inspection are afforded.

The reporter of the case passes some strictures on the conduct of the surgeon who allowed the catheter to slip into the bladder. Having found it in the urethra, he might, at all events, have prevented it from going farther, by the simple expedient of squeezing the penis upon the bougie at the pubes. It is difficult to imagine how a gum catheter could pass entirely into the bladder, indeed we doubt if it would do so, unless thrust into it by injudicious and clumsy attempts at its extraction from the urethra. For further information respecting the presence of portions of bougie or other foreign bodies in the bladder, the reporter refers the inquisitive reader to Cho-part. Some little time back we saw a hair-pin extracted from the male perineum. There was no external wound, and how it got there the patient professed himself totally unable to conceive. No bad consequences followed its extraction by an incision in perineo.

XLIX.

MR. MACKENZIE ON STRABISMUS.*

STRABISMUS is an affection respecting

which practitioners will frequently be consulted by anxious parents, and it possibly may redound to their advantage if they are acquainted with the current information on the subject. It is on this account that we are induced to notice Mr. Mackenzie's section upon it.

We need scarcely inform our readers that in strabismus one eye only is usually unsound. This is commonly directed inwards, sometimes outwards; the former is termed strabismus convergens, the latter strabismus divergens. In some the eyes squint alternately, or even both together. The vision of a squinting eye is almost always imperfect; those who squint with both eyes see confusedly; those who squint inwards with both are generally very short sighted.

The remote causes of strabismus are numerous. 1. It appears to arise in many instances from improper education of the eyes in young children, as from nurses laying the child in such a position in its cradle that it sees the light or any other remarkable object with one eye only, and so forth. Strabismus divergens is attributed to the improper practice of accustoming a child to look at the same time at two objects of which it is fond, at the light, for instance, on one side and the nurse on the other. 2. Children occasionally become squinters from the habit of looking at the point of their nose. 3. Imitation is a cause of squinting. 4. Covering a weak eye, which had been accidentally diseased, before the habit of observing objects with both eyes is perfectly established. 5. Spasm of the rectus, which may arise from a variety of causes. Mr. M. saw a little boy who was affected with strabismus immediately after squirting the oily juice of orange-skin into his eye, which produced great pain. 6. A speck of the cornea, by the habit which it occasions of the patient's turning the eye out of the natural axis of vision, in order that he may see past the speck. 7. The most frequent cause is imperfect vision from short sightedness or congenital defect in the retina. The distorted eye is in almost every case very con-

* On the Diseases of the Eye, p. 249, et seq.

siderably inferior in power to the other. 8. Strabismus is induced by various diseases of the brain, cerebral irritation from worms, teething, &c. Amaurosis affecting both eyes is generally attended with slight strabismus. 9. Whatever be the remote cause of strabismus, we cannot doubt that its proximate cause must in some way or other affect the muscles of the eyeball. One or more of these muscles must be in a state rendering them incapable of their natural exercise. The muscular substance may be in a state of atony, or the nervous energy which ought to animate them, may be imperfectly supplied. In by far the greater number of cases of strabismus, the eye rolls involuntarily inwards, which may lead us to conclude, that the abductor is in a state of unfitness for its office. It is not absolutely paralyzed, for on closing the sound eye it evidently exerts its proper function, but from some cause to us unknown, as soon as the sound eye is again opened, the muscular force of the abductor is no longer able to support the eye in its natural direction, so that the distortion immediately returns.

Treatment. "1. Our first object in the treatment of strabismus, must be to discover the cause. When this is accomplished, the plan of cure will be obvious; or, perhaps, we shall find reason to consider the defect as irremediable.

2. As strabismus often arises in children from abdominal irritation, we ought first to try the effect of an active purge or two; and then follow this up by mild aperients, and a carefully regulated diet. Squinting children are generally weakly, and often strumous, so that a course of tonic medicine will probably be useful.

3. Strabismus is frequently observed in children to be connected with a careless employment of the eyes, which is instantly corrected by exciting their attention. In other cases, the squint is never observed except when the child is in bad temper.

4. When only one eye squints, and when the defect in the sight of that eye is not very great, much may be done by strengthening

its muscles, to cure the strabismus. The strengthening of the muscles is effected chiefly by tying up the sound eye, and thus obliging the patient to exercise only the eye which squints. Whenever the sound eye is blindfolded, the weak eye recovers its natural position in the orbit, and its natural motions. The patient finds that the sight gradually improves by use; and we observe that though the strabismus does return, on again exposing the sound eye, yet it is not to the same extent, and day after day becomes less, if the plan of cure is continued.

The patient need not keep the sound eye covered during the whole day. At first, this may be done for half an hour or an hour at a time, and then for longer periods. During the blindfolding of the sound eye, the weak one is to be exercised both on distant and on near objects, but especially on the former. If the patient be a child, he must be encouraged to exercise the weak eye in playing at ball or shuttlecock, viewing extensive prospects in the country, reading books printed in a large type, looking at prints, &c. Many authorities might be produced in favour of the efficaciousness of this mode of cure. Beer tells us, that by binding up the sound eye every day even for a couple of hours only, he had, in most cases, been successful.* It is worthy of remark, however, that this plan of curing strabismus is often attended by a diminished power both of motion and of vision in the sound eye; and that it has sometimes happened, that the squinting eye being cured by perseverance in this method, the sound eye has then become distorted. If both eyes squint from the first, they must be blindfolded alternately, each for several days at a time.

Another method of exercising the weak eye is that recommended by Dr. Jurin, in his *Essay on Distinct and Indistinct Vision*. Having placed the patient before us, we bid him close the undistorted eye, and look at us with the other. When we find the axis

* "Pflege gesunder und geschwächter Augen. p. 41. Frankfurt, 1802."

of this eye fixed directly upon us, we bid him endeavour to keep it in that situation, and open his other eye. Immediately, the distorted eye turns away from us towards his nose, and the axis of the other is pointed at us. But with patience and repeated trials, he will, by degrees, be able to keep the distorted eye fixed upon us, at least for some little time after the other is opened. When we have brought him to continue the axes of both eyes fixed upon us, as we stand directly before him, it will be time to change his position, and to set him first a little to one side of us and then to the other, and so to practice the same thing. When, in all these situations, he can perfectly and readily turn the axes of both eyes towards us, the cure is effected. An adult may practice all this in a mirror, without any director, though not so easily as with one.

5. As there is an inequality in the sensations of the sound and of the weak eye, it has been suggested that we should endeavour to render them more on a par, and that this of itself would tend to correct the distortion. Buffon recommended, therefore, that the patient should wear a pair of spectacles with a plane glass opposite to the bad eye, and a convex glass opposite to the good eye. In this way, the vision of the good eye would be rendered less distinct, and consequently it would be less in a state to act independently of the other.* As the weak eye is often short-sighted, the same advantage might perhaps be derived from placing a plane glass before the good eye, and a concave glass before the distorted one."

6. The treatment of strabismus must be varied as the cause is more or less connected with the muscles of the eye-ball. A merely bad habit may be overcome by the first two means. But discrimination is required. A girl had a speck on the cornea, occasioning strabismus. The speck was removed, but

the squint remained. By a careful system of exercise, with the sound eye covered, a cure was effected. In strabismus convergens of both eyes, a pair of blinders, projecting in front from the temples, are recommended to be tried during a part at least of every day, with a view of attracting the eyes outwards. When the blinders are laid aside a broad green shade should be worn.

"Darwin employed a different plan, and with considerable success, in a case which appears to have partaken of the nature of this strabismus, and which he has related in the Philosophical Transactions. The patient was a child, of five years of age, exceedingly tractable and sensible. He viewed every object which was presented to him with but one eye at a time. If the object was presented on his right side, he viewed it with his left eye, and *vice versa*. He turned the pupil of that eye, which was on the same side with the object, in such a direction that the image of the object might fall on that part of the bottom of the eye where the optic nerve enters it. When an object was held directly before him, he turned his head a little to one side, and observed it with but one eye *viz.* with that most distant from the object, turning away the other in the manner above described; and when he became tired with observing it with that eye, he turned his head the contrary way, and observed it with the other eye alone with equal facility; but never turned the axes of both eyes on it at the same time. He saw and named letters with equal ease, and at equal distances, with the one eye as with the other. There was no perceptible difference in the diameters of the irises, nor in their contractility, after having covered his eyes from the light. From these circumstances, Darwin was led at first to conclude that there was no defect in either eye,* but that the disease was

* "Dissertation sur la Cause du Strabisme. Mémoires de l'Académie des Sciences pour 1743; p. 338. 12mo. Amsterdam, 1748."

* "From a series of experiments which he afterwards made, he came to the conclusion that the insensible spot at the bottom of this child's eye was four times the area of that in the eyes of others."

simply a depraved habit of moving his eyes, which might probably be occasioned by the form of a cap or head-dress, which might have been too prominent on the sides of his face, like bluffs used on coach-horses, and might, in early infancy, have made it more convenient for the child to view objects placed obliquely with the opposite eye, till by habit the adductores were become stronger, and more ready for motion than their antagonists. Darwin recommended a paper gnomon to be made, and fixed to a cap. When this artificial nose was placed over his real nose, so as to project an inch between his eyes, the child, rather than turn his head so far to look at oblique objects, immediately began to view them with that eye which was next to them. The plan of cure was not persisted in; so that, six years after, Darwin found all the circumstances of this child's mode of vision exactly as they had been, except that they seemed established by longer habit, so that he could not bend the axes of both his eyes, on the same object, not even for a moment. By Darwin's advice, a gnomon of thin brass was made to stand over his nose, with half a circle of the same metal to go round his temples. These were covered with black-silk, and by means of a buckle behind his head, and a cross piece over the crown of his head, this gnomon was worn without inconvenience, and projected before his nose about two inches and a half. By the intervention of this instrument, he soon found it less inconvenient to view oblique objects with the eye next to them; instead of the eye opposite to them. After this habit was weakened by a week's use of the gnomon, two bits of wood, about the size of a goose-quill, blackened all but a quarter of an inch at their summits, were frequently presented for him to look at, one being held on one side the extremity of the gnomon, and the other on the other side of it. As he viewed these, they were gradually brought forwards beyond the gnomon, and then one was concealed behind the other. By this means, in another week, he could bend both his eyes on the same object for half a minute together. By the practice of this exercise,

before a glass, almost every hour in the day, he became in another week able to read for a minute together, with his eyes both directed on the same objects. By perseverance in the use of the artificial nose, he acquired more and more the voluntary power of directing both eyes to the same object, particularly if the object was not more than four or five feet from him, so that Darwin anticipated a complete cure."

In strabismus divergens, affecting both eyes, the alternate blindfolding of the eyes is likely to be useful. It has been recommended to apply a piece of black plaster on the point of the nose. Weller recommends a short funnel, made of pasteboard, with an oval base, to be so applied as to include both eyes, and having, at the part which rests above the point of the nose, an opening about an inch in diameter. Through this, fixed straight and firm, the patient must look, and by-and-bye read, when he must necessarily turn the eyes inwards and downwards.

L.

SEPARATION WITHOUT DISSENTION; OBSERVATIONS ADDRESSED TO GENERAL PRACTITIONERS. By WM. COOKE, M.D. R.C.S. Octavo, pp. 32, 1831.

MR. COOKE has hit on a very ingenious method of issuing forth a second edition, without the trouble or expence of re-printing. The present pamphlet formed the concluding portion of a brochure published a few years ago; and being now detached from its better half, is sent out into the world under the title at the head of this article. We do not say that there is any thing unfair in this; but we think the fact should be noticed, both in the title-page and the advertisements, in order that individuals may not have reason to complain that they have purchased the same work—or at least half of a work twice over. At the same time, we are ready to admit that the observations contained in this pamphlet are well worthy of double, or even treble

perusal. They are calculated, or at all events designed, to produce peace and good will throughout all ranks of medical society.

From the following passage, we augur that the author is not an advocate for the recent proposal, to unite in one body the different grades of the profession:

“One chimerical suggestion (Mr. Greens) —of uniting the different orders of the profession into one class—with, indeed, some broad lines of division—has the sanction of a name that gives weight to the proposition; —and it is sent forth endorsed with a title well adapted to secure its acceptance. The author may have the credit of good intention, but as it bears on the General Practitioner, (whose mental resources he does not duly appreciate,) we are reminded of the trite anecdote of the man, who, being officious and troublesome to a commander and his crew during a tempest, was directed to hold a rope with all his might lest the vessel should be lost. The officers were relieved from the man’s interference, and his self-importance was gratified, whilst in reality he had stood a cipher. With such differences of opinion as exist in the higher as well as lower departments, we are compelled to say with Horace,

— ut nec pes, nec caput uni.
Reddatur formæ..

It would greatly derogate from the interests of General Practitioners, if they accepted of any concession (and some is undoubtedly due to them,) that did not recognize an elevation of rank commensurate with their elevation of professional character. I am no advocate of a levelling system, and yet I think it both conducive to the advancement of medical philosophy, and congenial with the spirit of the times, that a door should be open to talent, though it may have germinated among the rubbish of pharmacy and obstetrics.

It must, however, be remembered that as it relates to the public, and this is by far the most important consideration, legislation will effect little or nothing, except as it affords a security against incompetence. The practical applica-

tion of knowledge and skill, so as to ensure confidence—to establish reputation—and to diffuse the inestimable blessings of the healing art, must rest with ourselves.”—PREFACE.

We apprehend that there is a great deal of truth in the concluding paragraph marked in Italics. If the rank of bishop or field-marshal were conferred on every individual in the medical profession, it would not advance their fame or fortune one iota. Nothing but cultivation of talent, exertion of industry, and the exercise of probity, will raise for a medical man either riches or reputation—of a lasting character; for we see too many instances of successful quackery, and scandalous traffic in human life for the sake of pelf. Laws and regulations are necessary for guarding against these unprincipled invaders of science—and also for securing to each individual a fair field for the exercise of his talents; but beyond this we are not very sanguine in our expectations of benefit from legislation. We conceive that the best plan, in this advanced æra, for equalizing *rights*, is to equalize *education*. Knowledge cannot be equalized—for that depends on exertions made long after the period of education is past. Whenever a uniformity of study and of examination is enjoined by law, for the medical profession, the summum bonum of legislation will be obtained.

LI.

PAPERS ON CHOLERA. By the BOARD OF HEALTH. Octavo, pp. 38. Aug. 1831.

THE greater part of this brochure is occupied with some brief abstract of the symptoms and treatment of the Indian cholera; but this we need not notice, as the pages of our journal contain much ampler information on these points than can be conveyed in a pamphlet.

The next document is an extract from Dr. Kier’s report on the cholera of Moscow, as it appeared there in the Autumn of 1830,

and Winter of 1831. As we shall quote the description of the symptoms from Drs. Russell and Barry, we shall here only insert Dr. Keir's *post mortem* appearances.

"The appearances in the dead bodies were not uniform, and varied according to the duration of the disease and the circumstances under which the patient had died. As this was the case, I conceive the most satisfactory way by which I can answer the inquiry on this head will be to transmit the printed accounts of the dissections made at Moscow, and presented to the Medical Council there, by its members who occupied themselves the most with this part of the duty; while I here add the impression made on my own mind by the dissections at which I was present.

The extremities in general were more or less livid and contracted, and the skin of the hands and feet corrugated, the features sunk and ghastly; on opening the skull, the blood-vessels of the brain and its membranes were more or less turgid with blood, particularly towards the base; the arachnoidea had sometimes in several places lost its transparency, and adhered to the pia mater; a fluid was sometimes found effused into the convolutions of the brain in some quantity, and more or less of serum in the lateral ventricles. The blood-vessels of the vertebral column and spinal chord more or less loaded with blood, which was sometimes effused between its arachnoid and dura mater; partial softening of the substance of the spinal chord was sometimes met with, and marks of inflammatory congestion in the larger nerves. The lungs were generally gorged with dark-coloured blood, the cavities of the heart filled with the same; and frequently containing poly-pous concretions. In all the dissections I was present at, very dark-coloured blood, which, when extended on a white surface, resembled the colour of the darkest cherry, was found in the arch of the aorta, and in other arteries.

The state of the abdominal organs varied considerably, the stomach and different parts of the intestines were frequently found

to be partially, but considerably contracted; the internal surface of the stomach sometimes seemed to be little affected. A whitish or yellow fluid matter resembling the evacuations was frequently found in different parts of the alimentary canal, which now and then contained a good deal of air. In either case both stomach and intestines bore marks of congestion, and of a sub-inflammatory state, varying from dark-coloured spots of small extent, to several inches, affecting the whole internal circumference of the intestines. The colour of these parts also varied a good deal, from dark-coloured venous congestion, to rose-coloured inflammation. In one case the internal surface of the stomach was so strongly and so generally tinged of a very dark colour, that it might easily have been mistaken for gangrene. On exposing the stomach between the eye and the light, it was evident that there was neither gangrene, nor solution of continuity, but that the dark colour proceeded from a very general and great congestion of very dark-coloured blood in the vessels of the organ. The subject of this case, I was told, had died with symptoms of a typhoid nature, after suffering from the usual symptoms of the epidemic. Excepting in this case, which was evidently one of congestion, and not of inflammation, I saw nothing in the morbid appearances from which a conclusion could be drawn, that inflammation was a very general morbid change in the alimentary canal, or a common cause of death: however, by its presence in the second period of the disease, it might add to the general irritation, or, even as a consequence of preceding congestion, be itself occasionally the cause of the fatal event. Both stomach and bowels were frequently of a paler colour than natural, both on the outer and inner surface; but neither thickening nor condensation from inflammation, nor exulceration, destruction of substance, nor abscess, appeared in any of the dissections I was present at.

The liver was generally pretty full of dark-coloured blood, the gall-bladder frequently much distended with tenacious ropy

bile, of a dark yellow or green colour ; the gall-ducts sometimes contracted, at other times not ; the appearance of the pancreas, spleen, and kidneys was various, frequently differing but little from their natural state, in other cases rather surcharged with blood, the urinary bladder almost always collapsed and empty, the uterus generally natural."

The last document, and that which will be most eagerly perused, is an extract from the joint report of Drs. Russell and Barry. We shall give it entire.

"St. Petersburg, July 27, 1831.

SIR,

Although there can be no doubt that the disease now prevailing here is strictly identical, in all essential points, with the Epidemic Cholera of India ; and although there are many descriptions extant of that malady, much more ably and accurately drawn up than any which we can pretend to give ; yet we are induced to believe that a short account of the symptoms which we ourselves have actually witnessed and noted at the bedside in some hundreds of cases, since our arrival here, may be useful,—first, because we are not aware that any description by an eye-witness of European Cholera has yet been addressed to the British Government ; secondly, because the disease, as it has shown itself in this capital, when closely compared with the Indian Cholera, appears to have undergone some modifications ; thirdly, because, having now studied the disease in all its stages, our description, however imperfect, will at least assist towards establishing a standard of comparison with other local epidemics of Cholera in Europe, and may, perhaps, enable those who have not seen this disease, to recognise it with more certainty than they would otherwise be able to do.

The Cholera Morbus of the North of Europe, to which the Russian peasants have given the name of 'Chornaia Colezn,' or *black illness*, like most other diseases, is accompanied by a set of symptoms which may be termed preliminary ; by another set which strongly mark the disease in its first,

cold, or collapse stage ; and by a third set, which characterise the second stage, that of re-action, heat, and fever.

Preliminary Symptoms. We have but few opportunities of witnessing the presence of all these symptoms, some of which precede the complete seizure by so short an interval, that the utmost diligence is scarcely sufficient to bring the patient and the physician together, after their occurrence, before the disease is fully formed. Diarrhœa, at first feculent, with slight cramps in the legs, nausea, pain, or heat about the pit of the stomach, malaise, give the longest warning. Indeed, purging, or ordinary diarrhœa, has been frequently known to continue for one, two, or more days, unaccompanied by any other remarkable symptom, until the patient is suddenly struck blue, and nearly lifeless. Often the symptoms just mentioned are arrested by timely judicious treatment, and the disease completely averted. When violent vertigo, sick stomach, nervous agitation, intermittent, slow, or small pulse, cramps, beginning at the tips of the fingers and toes, and rapidly approaching the trunk, give the first warning ; then there is scarcely an interval. Vomiting or purging, or both these evacuations, of a liquid like rice-water or whey, or barley-water, come on ; the features become sharp and contracted, the eye sinks, the look is expressive of terror, wildness, and, as it were, a consciousness on the part of the sufferer that the hand of death is upon him. The lips, the face, the neck, the hands, the feet, and soon the thighs, arms, and whole surface, assume a leaden, blue, purple, black, or deep brown tint, according to the complexion of the individual, varying in shade with the intensity of the attack. The fingers and toes are reduced at least a third in thickness ; the skin and soft parts covering them are wrinkled, shrivelled, and folded ; the nails put on a blueish pearl-white ; the larger superficial veins are marked by flat lines of a deeper black ; the pulse is either small as a thread, and scarcely vibrating, or else totally extinct.

The skin is deadly cold, and often damp; the tongue *always moist*, often white and loaded, but flabby and chilled, like a bit of dead flesh. The voice is nearly gone; the respiration quick, irregular, and imperfectly performed. Inspiration appears to be effected by an immense effort of the chest, whilst the *alae nasi* (in the most hopeless cases, and towards their close), instead of expanding, collapse, and stop the ingress of the air. Expiration is quick and convulsive. The patient asks only for water, speaks in a plaintive whisper, (the '*vox cholericæ*'), and only by a word at a time, from not being able to retain air enough in his lungs for a sentence. He tosses incessantly from side to side, and complains of intolerable weight and anguish around his heart. He struggles for breath, and often lays his hand on his stomach and chest to point out the seat of his agony. The integuments of the belly are sometimes raised into high irregular folds, whilst the belly itself is violently drawn in, the diaphragm upwards and inwards towards the chest: sometimes there are tetanic spasms of the legs, thighs, and loins; but we have not seen general tetanus, nor even trismus. There is occasionally a low, suffering whine. The secretion of urine is always totally suspended, nor have we observed tears shed under these circumstances; vomiting and purging, which are far from being the most important or dangerous symptoms, and which, in a very great number of cases of the present epidemic have not been profuse, generally cease, or are arrested by medicine easily in the attack. Frictions remove the blue colour for a time from the part rubbed; but in other parts, particularly the face, the livor becomes every moment more intense and more general. The lips and cheeks sometimes puff out and flap, in expiration, with a white froth between them, as in apoplexy. If blood be obtained in this state, it is black, flows by drops, is thick, and feels to the finger colder than natural. Towards the close of this scene, the respiration becomes very slow, there is a quivering among the tendons of the wrist, the mind remains entire. The patient is first unable to swallow, then becomes insensible;

there never is, however, any rattle in the throat, and he dies quietly after a long, convulsive sob or two.

The above is a faint description of the very worst kind of case, dying, in the cold stage, in from six to twenty-four hours after the setting-in of the bad symptoms. We have seen many such cases just carried to the hospital from their homes or their barracks. In by far the greater number vomiting had ceased, in some, however, it was still going on, and invariably of the true serous kind. Many confessed that they had concealed a diarrhoea for a day or two; others had been suddenly seized, generally very early in the morning.

From the aggravated state which we have just described, but very few indeed recover, particularly if that state has been present even for *four hours* before treatment has commenced. A thread of pulse, however small, is almost always felt at the wrist, where recovery from the blue or cold stage is to be expected. Singular enough to say, hiccough coming on in the intermediate moments, between the threatening of death and the beginning of re-action, is a favourable sign, and generally announces the return of circulation.

In less severe cases the pulse is not wholly extinguished, though much reduced in volume; the respiration is less embarrassed; the oppression and anguish at the chest are not so overwhelming, although vomiting and purging and the cramps may have been more intense. The coldness and change of colour of the surface, the peculiar alteration of the voice, a greater or less degree of coldness of the tongue, the character of the liquids evacuated, have been invariably well marked in all the degrees of violence of attack which we have hitherto witnessed in this epidemic. In no case or stage of this disease have we observed shivering; nor have we heard, after inquiry, of more than one case, in which this febrile symptom took place.

Fever or Hot Stage. After the blue cold period has lasted from twelve to twenty-four, seldom to forty-eight hours or upwards, the pulse and external heat begin gradually

to return, head-ach is complained of, with noise in the ears, the tongue becomes more loaded, redder at the tip and edges, and also drier. High coloured urine is passed with pain and in small quantities, the pupil is often dilated, soreness is felt on pressure over the liver, stomach, and belly, bleeding by the lancet or leeches is required. Ice to the head gives great relief. In short, the patient is now labouring under a continued fever not to be distinguished from ordinary fever. A profuse critical perspiration may come on, from the second or third day, and leave the sufferer convalescent; but, much more frequently, the quickness of pulse and heat of skin continue, the tongue becomes brown and parched, the eyes are suffused and drowsy, there is a dull flush with stupor and heaviness about the countenance, much resembling typhus, dark sordes collect about the lips and teeth, sometimes the patient is pale, squalid, and low, with the pulse and heat below natural, but with the typhous stupor, delirium supervenes, and death takes place from the fourth to the eighth day, or even later, in the very individual, too, whom the most assiduous attention had barely saved in the first or cold stage. To give a notion of the importance and danger of cholera fever, a most intelligent physician, Dr. Reimer, of the merchant hospital, informs us, that of twenty cases treated under his own eye, who fell victims to the disease, seven died in the cold stage, and thirteen in the consecutive fever.

The singular malady is only cognizable *with certainty* during its blue or cold period. After re-action has been established, it cannot be distinguished from an ordinary continued fever, except by the shortness and fatality of its course. The greenish or dark, and highly bilious discharges produced in the hot stage, by calomel, are not sufficiently diagnostic, and it is curious that the persons employed about these typhoid cases, when they are attacked, are never seized with ordinary fever, but with a genuine cold, blue cholera; nothing, therefore, is more certain, than that persons may come to the coast of England, apparently

labouring under common feverish indisposition, who really and truly are suffering under cholera in the second stage.

The points of difference between the present epidemic and the cholera of India, when the two diseases are closely compared, appear to us to be the following:—

First, The evacuations, both upwards and downwards, seem to have been much more profuse and ungovernable in the Indian than in the present cholera, though the characters of the evacuations are precisely the same.

Secondly, Restoration to health from the cold stage, without passing through consecutive fever of any kind, was by far more frequent in India than here, nor did the consecutive fever there assume a typhoid type.

Thirdly, The proportion of deaths in the cold stage, compared with those in the hot, was far greater in India, according to Dr. Russell's experience, than here.

Fourthly, The number of medical men and hospital attendants attacked with cholera during the present epidemic, in proportion to the whole employed and to the other classes of society, has been beyond all comparison greater here than in India under similar circumstances; twenty-five medical men have been already seized, and nine have died out of two hundred and sixty-four. Four others have died at Cronstadt out of a very small number residing in that fortress at the time the disease broke out there. Six attendants have been taken ill at a small temporary hospital behind the Aboucoff since we wrote last. It is certain, however, that in some cholera hospitals, favourably circumstanced as to size, ventilation, and space, very few of the attendants have suffered.

Of these facts we are likely to receive accurate statements in answer to the written questions which we have submitted to the medical authorities through the Government here.

Convalescence from Cholera has been rapid and perfect here, as is proved by the following fact. The Minister of the Interior had given orders that all convalescents, civil as well as military, at the General

Hospital, should be detained fourteen days. We inspected about two hundred of these détenus some days back, with Sir James Wyllie, and found them in excellent health, without a single morbid sequela amongst them.

Relapses are rare in this epidemic, nor have they been often attended with fatal results; hospital servants seem to have been most liable to them. One physician had three attacks, the second severe, in which he states that he derived great benefit from the *Magisterium bismuthi*."

The pamphlet concludes with a short sanatory advice to the inhabitants of towns and villages on the coast, in the event of the cholera appearing in those places. The directions do not differ from those which would be issued by a Quarantine Board, if plague were on the opposite coasts. These directions are familiar to medical readers, and need no notice in this place.

It appears that the Russian Government has abolished all quarantine; but we can scarcely believe that the reason assigned is, "that the whole empire being infected, nothing remains to be gained by the restrictions." Surely no Government in its senses would issue such an astounding annunciation! One thing is clear from this abolition—namely, that quarantine has been of no use in Russia. It will probably turn out that the same measure will be useless to all but those employed in its execution, in more countries than Russia.

LII.

A PRACTICAL TREATISE ON INJURIES OF THE HEAD. 12mo. pp. 121, Dublin, 1831.

THIS is really, of its kind, an useful volume, and is likely to be an acceptable one to young men. It is a compilation from all the authorities on the subject of injuries of the head, and the experience and opinions, the tenets and the modes of practice of Pott and Abernethy, Sir Astley Cooper and Mr. Brodie, Mr. Dease and Mr. Colles,

will here be found concentrated and condensed. The Irish ought certainly to become acquainted with the nature and treatment of broken heads, and we are not a whit surprised that the present production should emanate from Dublin. The injuries of the scalp, skull, and brain are treated of in detail, and, after the consideration of each, we are presented with an epitome of the general remarks in the shape of a series of aphorisms. We think that our readers will not be displeased with a sight of a few of them.

L. APHORISMS RESPECTING WOUNDS OF THE SCALP.

"Wounds of the scalp do not essentially differ from wounds of similar parts situated elsewhere, and are to be treated on precisely the same principles.

In the treatment of wounds of the scalp, you should have constantly in view its preservation.

Union by the first intention is always to be attempted in incised and lacerated flap wounds, not combined with fractures, &c.

If a scale of bone be cut off, and adhere to the flap, it makes no difference in the treatment. Proceed as if such complication did not exist.

In contused wounds, if small, approximate the parts, but by no means bring them into very close apposition.

Flap wounds which are much contused are to be treated by laying down the flap, after washing clean the surfaces. After the process of sloughing has taken place, bring the parts into the closest apposition.

Never interpose a dressing between the flap and skull.

Treat punctured wounds of the scalp as similar wounds in other parts, and like structures.

To remove the inflammatory tension of the aponeurosis produced by these wounds, and the consequent fever, dilate the puncture by incision.

Erysipelas, with fever, is not an unfrequent consequence of wounds of the scalp.

Always keep in mind the proximity of

those wounds to the brain; the vascular connexion between the pericranium and dura mater; and the necessity, on this account, of a strict attention to the antiphlogistic regimen in the treatment."

We see nothing objectionable in the foregoing precepts; on the contrary they appear to be judicious and unexceptionable. We would observe, en passant, that in attempting to bring together the edges of a scalp-wound, in order to unite them by the first intention the surgeon should not apply strip over strip of sticking-plaister, as is usually done. The best plan is to use as few strips as possible, interlacing them in such a manner as to insure their firm adhesion, at the same time that intervals are left for the escape of matter, if it should be formed. The plaster should be changed, under ordinary circumstances, on the third day. Frequently the edges unite whilst some suppuration has taken place in the cellular membrane within. Break up the adhesions if the wound be small; a part of them in the most favourable situation if it be large, and allow the matter to escape. A poultice is to be applied to the wound, or to the part of it where the adhesions have been destroyed, and the remainder, in the latter case, is to be supported by a few adhesive straps. Such is the mode of treatment which we have found the best for such scalp-wounds.

II. APHORISMS ON CONTUSIONS OF THE SCALP.

"Contusions of the head are generally attended with detachment of the scalp, from the pericranium, and a *bloody tumor* is the consequence.

The feel of this tumor so nearly resembles that of a depressed fracture, as often to be mistaken for it.

Never, on this account, make an incision in order to examine the state of the skull; but wait for the occurrence of those symptoms which render fracture more probable.

The application of cold lotions to the tumor, with the occasional use of laxative medicines, will, in general, be sufficient for the removal of the extravasated blood.

If these means should not be successful at the end of ten or twelve days, let out the blood by an incision."

We doubt the propriety of the latter piece of advice. We have seen more than one instance of the bloody tumour of the scalp remaining for upwards of a fortnight, and at length slowly yielding to lotions of muriate of ammonia, so that we should hesitate ere we plunged a lancet into the tumour. We have witnessed this practice, but suppuration occurred, and although so far as we remember, no bad consequences ultimately ensued, yet the general complexion of the case did not give us a favourable impression of its merits. The mass of practitioners we fear, are not sufficiently acquainted with the characters of this bloody tumour of the scalp. We have seen two instances in which egregious blunders have been made.

III. APHORISMS ON ERYSIPELAS OF THE SCALP.

"If, between the third and seventh days from the receipt of the wound, you perceive its lips to become puffy, and the surrounding integuments red and swollen, while at the same time symptoms of gastric disturbance make their appearance, you have reason to fear the occurrence of erysipelas.

The degree of danger of this disease is always proportioned to the violence of the fever, and recovery from the one is indicated by the cessation of the other.

In nine cases out of ten, the disease arises from disorder of the liver and other digestive organs, and to the removal of this disorder must your remedies be directed.

The constitutional treatment, in young and plethoric patients, consists in the use of blood-letting, emetics, purgatives, and other evacuants; followed, when the inflammation has subsided, and the tongue become clean, by tonics and nutritive diet.

In old, debilitated persons, the antiphlogistic treatment is contra-indicated, and recourse must be had to bark, &c. from the commencement.

The local treatment is always of less importance than the constitutional, and consists in the application of leeches, poultices, cold lotions, &c. to the wound and erysipelas.

On post-mortem examination of the brain of those who have died of erysipelas, no appearances indicative of disease of that organ can be detected."

Like all other accounts of erysipelas which we have read, this is abundantly leavened with sins both of omission and commission. Singularly enough the most characteristic symptom denoting the approach of erysipelas is not alluded to, we mean the rigor. How often have we seen this inspire a panic, and the secondary formations of matter have been apprehended when erysipelas only is to come. It is said that the degree of danger is commensurate with the violence of the fever. It is not so; the danger is dependent on the combination of many circumstances independent of violent fever. We are far from certain, (and we have witnessed a great many cases of the disease,) we are far from certain, we repeat, that in nine cases out of ten the disease arises from disorder of the liver and digestive organs. That the tongue is more or less foul, the intestinal secretions more or less depraved, we are willing to grant; but that these stand in the position of causes of the disease is more than we can venture to believe. We are certain also that the ordinary means of relieving disorder of the digestive organs will not cure a smart attack of erysipelas. The treatment in this town, particularly in our hospitals, though usually antiphlogistic in the first instance, need seldom be severe; blood-letting, for instance, not often being necessary. There are many, very many, considerations, into which we cannot enter at present, in the treatment of erysipelas. We repeat that we have never yet read a really good paper on the subject. Mr. Lawrence's is leather and prunella.

Talking of erysipelas of the scalp we cannot forbear noticing a much more severe affection; diffuse inflammation of the cellular membrane under the occipito-frontalis

muscle and tendon. This is noticed, but clumsily, in the little work before us. Such as the description is we shall place it before our readers, not on account of its own merits, but of the paramount importance of a right understanding of the affection.

"These wounds are more likely than any we have as yet considered, to inflame and produce troublesome symptoms. This is generally true of all parts of the body, but in the scalp, particularly, they are sometimes attended with such a high degree of inflammation, and such dangerous symptoms, as to give cause for well-grounded alarm to both patient and surgeon. These symptoms, it is true, bear a close resemblance to those that occur from inflammation of any other part under fascia or aponeurotic structure; but on account of the proximity of the inflammation to the brain and its membranes, they are peculiarly modified, and merit particular attention.

In this description of wounds, the inflammation which inevitably follows does not produce the same degree of tumefaction as we observe in erysipelas of the scalp; neither does it pit on pressure, which we shall presently see is another symptom of erysipelas. The swelling is generally of the natural colour of the skin, except in the immediate vicinity of the wound, where it is of a deep red colour, unmixed with the yellow hue which characterizes erysipelas. It is very tense and extremely painful to the touch. In general, the ear and eye-lids are not comprehended in the tumour, although they may sometimes partake of the general inflammation of the skin, which occasionally attends those injuries.

The constitutional symptoms are usually extremely violent. Acute pain in the head hot skin, parched tongue, excessive thirst, constipated bowels, high coloured urine, restlessness, total want of sleep, very frequently delirium, with all the other symptoms of high inflammatory fever, are the almost constant attendants on punctured wounds penetrating the aponeurosis of the occipito-frontalis muscle. If the cause of those symptoms be not suspected, or the proper treatment not adopted, the patient's

life is placed in the most imminent danger from the continuance of the fever; or, if he should fortunately escape a fatal termination of his sufferings, the injured aponeurosis and pericranium will become sloughy, abscesses will be produced, and the case rendered both tedious and troublesome.

How often do we see patients, under these formidable circumstances, ordered by their surgeons to have warm fomentations and emollient cataplasms applied to the wound, to the total neglect of the all-essential mode of practice! Do we not often see other surgeons, more considerate, prescribe the application of leeches to the tumor, or perhaps recommend a large quantity of blood to be taken from the arm, while the simplest and most efficient means of relieving the patient are entirely forgotten!

The mere enlargement of the wound, by a simple incision down to the bone, of an inch or less in length, will most commonly remove all the bad symptoms, and, if it be done in time, will render every thing else almost unnecessary. After having relieved the tension in this manner, if the inflammatory symptoms had previously run high, or if they should not be completely subdued by the operation, it will be proper to bleed from the arm, to an extent proportioned to the patient's age and strength, and to the violence of the symptoms; and afterwards make use of the other antiphlogistic remedies usually employed for the cure of inflammation, viz. purging, tartar-emetic in nauseating doses, strictly low diet, absolute rest, and the application of cold, evaporating lotions to the head, or warm poultices, according to the sensations of the patient.

Desault is of opinion that all those symptoms may generally be removed by the exhibition of tartar-emetic. This is a dangerous error, and may lead to a fatal neglect of the practice here inculcated, which, by the greater number of intelligent surgeons, is considered indispensable in inflammation under the aponeurosis.

In punctured wounds of the scalp, perhaps the best practice would be, in all cases, even before the occurrence of inflammation,

to enlarge the wound by a simple incision, and thus leave a free space for the tumefaction of the integuments and aponeurosis which almost always succeeds."

In the preceding observations there is something of good, and much of bad. In the first place, it is a mistake to imagine that diffuse inflammation of the cellular membrane of the scalp is exclusively produced by punctured wounds. We have seen it follow wounds of all descriptions, though it seems to be most common after those of a lacerated kind. The obvious deduction from this fact is, that enlarging a punctured wound, previous to the superintention of inflammation, is not likely to ward off the consequences which are dreaded. We have done this and we have seen it done, but we are far from satisfied of the utility of the practice. The description of wound to which it appears to be most applicable, is that in which there is a great contusion of the cellular membrane beneath the skin and aponeurosis, with a small punctured opening in the latter. When inflammation has occurred there can be no question of the propriety of incisions down to the pericranium. But here we dissent in toto from the position assumed by the author of this little work, that "the mere enlargement of the wound by a simple incision down to the bone, of an inch or less in length, will, most commonly, remove all the bad symptoms." We know, from experience, that in a London Hospital it will not. Free incisions, we repeat, are required, and short of those, there is usually no safety for the patient. From the quotation which we have made, our readers would be led to imagine, that when diffuse inflammation has attacked the cellular membrane of the scalp, active blood-letting is necessary. Again we affirm, that in the London hospitals such treatment would be destruction, for the cellular membrane readily sloughs, and active depletion renders it still more disposed to do so. In some cases we have seen bark and incisions go hand in hand. In the great majority, antimonials and neutral salts, with occasional calomel purges

are all that are required, independent of incisions. It is stated that in this affection there is little or no discolouration of the skin. This is a mistake. There is always, or has been so in the cases which we have witnessed, a blush of greater or less distinctness on the cutis of the scalp, and, more than that, this blush very frequently runs into common erysipelas. On this point, as on many others, we fear that the author of the little volume has drawn from books, rather than from life. We might make some further observations had we space and inclination. We are convinced that the common descriptions of erysipelas and diffuse inflammation of the scalp are vague and erroneous. With the following passage we must conclude.

IV. APHORISMS ON SUPPURATION WITHIN THE CRANIUM.

"Acute inflammation of the brain, as a consequence of wounds or other injuries, resembles in its symptoms idiopathic phrenitis, and requires precisely the same treatment.

If, between the seventh and twenty-first days, irregular rigors, frequently recurring, and attended with fever, make their appearance, we have reason to dread the formation of matter within the cranium.

Suppuration within the cranium is sometimes caused by apparently trivial injuries of the head. The probability of its occurrence cannot be estimated by the extent of the injury.

The matter is much oftener situated within the dura mater, than between this membrane and the bone. It is generally smeared over the whole surface of the pia mater of one hemisphere.

If the matter be situated between the dura mater and skull, the patient will often recover by the timely application of the trephine ; but, if the brain or pia mater be affected with suppuration, he will most probably die.

It will be time enough to use the trephine, when by irregular shiverings, &c. we have every reason to apprehend matter to be formed under the cranium.

Never apply the trephine as a means of *preventing* inflammation and suppuration of the brain and its membranes.

After every wound of the head, vigorous antiphlogistic treatment should at once be had recourse to, with a view to prevent suppuration within the cranium.

Abscesses in the liver occasionally follow wounds of the head. No satisfactory explanation of this fact has been given."

We have one observation to make. If the trephine is not applied till we are satisfied by "irregular shiverings," that is, by *many* shiverings that matter has been formed within the cranium, the probability is, that the operation will do no good. The trephine should be applied on the occurrence of the very first rigor, if local circumstances give any clue to the situation of the matter within. We cannot dismiss the small volume before us, without expressing our approbation of it as a whole, and our opinion that it is likely to be useful to the student and the practitioner. At the same time we cannot blind our eyes to its defects, nor refrain from cautioning the inexperienced portion of our readers against placing implicit confidence in all that is asserted in it.

LIII.

ST. THOMAS'S HOSPITAL.

CASES OF FOUL, SLOUGHING, AND CARCINOMATOUS ULCERATION, IN WHICH A SECRET REMEDY, SAID TO BE SPECIFIC, HAS BEEN TRIED.

SOME of our readers have probably heard of the pretensions (we can use no milder term) of Mr. Wall, a person of no education, and unconnected with the medical profession, to cure cancerous and other foul ulcers by a remedy which he has in his possession, and which we are given to understand is a product of the vegetable kingdom in India. For reasons which will appear in the sequel fully satisfactory, we need not however trouble ourselves in enquiring particularly what it is. Through the kindness and liberality of Mr. Green, the

merits of the remedy have been tested in this hospital, under the direction of its possessor himself, who had free access to the wards, and who, we believe, was introduced to the notice of Mr. Green by Mr. Callaway and Mr. B. Cooper of Guy's Hospital. Mr. Callaway has informed us that, in one case of carcinoma, in his private practice, Mr. Wall's dressings at first produced a cleaner and more healthy state of the surface of the ulcer; but this, he observed, was nothing more than many other applications would have done, and how the case has proceeded we have not been able to learn. A case of carcinomatous ulceration of (we think) the mamma under Mr. Cooper, in Guy's, was offered to Mr. W. which he refused to treat, as he considered the disease too far advanced. This happened during last Autumn, prior to the treatment of those we are now about to lay before the public, who will, with ourselves, be convinced by them of the complete inutility of the *nostrum* in question, in the hands of its present occupier. We are informed it was Mr. Wall's intention to make known the drug used, if after public trial it should prove efficacious; and therefore, with the laudable motive of endeavouring to discover some curative means for a most painful and irremediable disease, Mr. Green allowed these experiments to be made, which were witnessed by himself and those attending his practice at the hospital. It would be, perhaps, still desirable for the profession to be acquainted with the substance employed, as it might be turned to advantage in the management of certain ulcers. Mr. Wall is utterly ignorant of medicine or surgery, and consequently incapable of judging in what instances the application might be proper.

The subjoined reports will, we trust, be found highly interesting, independently of those reasons just alluded to, which alone would not have entitled them to be related at length.

CASE 1. Carcinomatous Ulceration of Lower Lip. Failure of Mr. Wall's Dressings and Treatment. Removal of the Symphysis and Anterior Portion of the Lower Jaw.

William New, æt. 43, admitted into Isaac's Ward, Dec. 9th, 1830.

Nearly the whole of the lower lip is destroyed, to within a short distance of the commissures on either side, by cancerous ulceration. A portion of the lip thus appears taken away in a somewhat semicircular form, the convexity being downwards towards the centre of the chin, there being fully an inch in vertical length from the lowest part of the border of the ulcer to the point we might imagine as the red margin of the lip. The edges of the ulcer are thick, hard, and irregular; in its centre, near to the mucous membrane of the labium attached to the gum, (which membrane is not lost to the same extent as the more superficial parts, having resisted the destructive process longer than the adjacent textures,) is a small slough, but not deep. No discharge takes place from its surface, excepting a thin and colourless exudation, sufficient to prevent its becoming dry. The surrounding parts are remarkably hard and unyielding to the touch, particularly underneath the chin, but no distinct glandular enlargement is perceptible about the neck. Our patient describes the pain he experiences as corresponding with that characteristic of cancer, namely, burning, and lancinating at times; and the intervals of ease have latterly become shorter. He first observed the disease in the lip six months ago, commencing in the form of a scab, which repeatedly fell off, and a fissure then succeeded it; this slowly increased by ulcerative action, accompanied with pain at first but slight; during the last six weeks, however, the progress of the ulceration has been rapid, so that we may say the present sore has been established within that time. The man's constitution seems rather broken up for his years, and his appearance is likewise that of a person beyond his age; but his health, he says, has never suffered, and he now finds no cause for complaint save the local disease.

Dec. 20th. Was visited by Mr. Wall, at the request of Mr. Green; the former expressed his opinion, without any reserve, that he would be able to cure the ulcer. He

directed pil. hydr. gr. iv. to be given every night, and magn. sulph. \mathfrak{z} ss. every third morning. A linseed poultice to the sore.

21st. Mr. Wall applied his dressing this morning. It produced slight pain for the first few minutes, which has now ceased.

23d. Has been daily dressed, with the same effect upon the part as to pain. He has occasionally a darting pain on one side of the lip, but not so severe as previously to the application of the present dressing.

29th. Same dressings have been continued ; the surface of the sore has certainly contracted, and has rather the appearance of healthy granulations in some parts. The pill at night is omitted, and he is now taking quina sulph. gr. ij. thrice daily, with allowance of \mathfrak{z} ij. of port wine in the 24 hours.

31st. The hardness around the ulcer and below the chin is very much diminished, and the sides of the sore are occupied by larger granulations, but in the centre there still remains a superficial slough, which is somewhat bigger at present than a week ago. There is no discharge from the surface, which appears still further contracted. The patient's eyes are red, especially in the morning, and the countenance has a tendency to flushing. Dressed daily by Mr. Wall. Wine and quinia continued.

1331, Jan. 6th. In the centre of the ulcer there is greater loss of substance, and the destroying process has proceeded further towards the gums and mucous membrane of the lip. The surface is also more foul in this situation, and the hardness is equally perceptible as heretofore below the chin. Mr. Wall says his object is to destroy the surface still more, and then cicatrization will rapidly ensue. He applies his vegetable powder, mixed up with lard, and then covers the surface, besmeared with this, with dry lint ; the latter again he confines with a strap of plaster, and over the whole a bread poultice is put.

9th. The surface both in the centre and around the ulcer is very much cleaner ; and within the last few days there has been scarcely any local pain, although some of a shooting character is occasionally felt in the face, passing upwards to the forehead. Pulvis

calaminæ was to-day applied by Mr. Wall.

11th. Powder of arrow-root was last night used locally ; the appearance of the ulcer is the same as two days ago.

18th. Ulceration has spread on the upper border of the lip on the right side, but involves merely the mucous covering. It may be said, however, that the diameter of the ulcer is increased nearly half an inch since the patient's admission, not including this superficial spot, which is quite smooth and of healthy appearance. The glands below the ramus of the jaw are perceived to be in some degree swollen.

31st. Latterly there has not been any change effected in the external characters of the sore, but the part has been tolerably free from pain. The hardness of the substance of the lip on both sides of the ulceration is undiminished, and its edges are now rather hard, and similar in aspect to that texture we often see surrounding the callous indolent ulcer of the leg. The same means have been persevered in, both locally and generally, and the patient does not complain of any suffering.

Feb. 8th. The part has been dressed three times a day with ung. resinæ, and the former remedy of Mr. Wall. Very little change in the condition of the ulcer is to be noticed, but it seems to have, in some measure, augmented since last report.

15th. Within the last week the ulcer has indeed diminished, but although healed superficially, the hardness remains fully obvious ; the pain is very trifling. Port wine is discontinued.

25th. Mr. Wall has not been able to attend regularly to dress the patient during the last four days, and it would seem that, partly in consequence of this omission, sloughing has occurred in the centre of the ulcer, attended by considerable pain, which extends upwards on both sides of the face. The sore has not spread laterally ; it is now dressed punctually.

March 4th. Upon the sound portion of the lip, on the left side, a superficial scab has formed, and the ulceration has likewise spread in this direction ; its progress is also observable lower down towards the chin.

Severe lancinating pain has been present in the whole face as well as in the diseased portion. The patient is feverish, and complains of the want of rest. Mr. Wall continues the same *specific* application, and the poultices of bread.

12th. The cancerous ulceration has been advancing on the left side of the lip, undermining the sound skin; the newly exposed surface is covered with a dark and characteristic sloughy matter, which possesses the peculiar smell of carcinoma. Aggravation of pain has been co-existent with the diffusion of the disease, and the patient is more distressed and anxious. Mr. Wall has not visited him for nearly a week, and bread poultices are now simply applied.

22d. Some further increase of ulceration is presented to view, but the surface is something cleaner. The pain is nearly constant, though not very severe in degree.

April. 5th. Ulcer is now clean, and has not spread since our last account; it is the seat of no pain.

23th. Very little alteration can be discovered, the surface being still free from foulness or sloughs. Poultices alone are used.

May 26th. Great destruction of the lower lip and soft parts inferior to this has recently taken place, under painful and peculiar sloughing ulceration. The ulcer presents an uneven surface of a dark brown colour, and is surrounded by a high and irregular margin. A correspondent increase of general disturbance has been present. Patient is forsaken by Mr. Wall. Poultices are continued.

June 12th. A cleaner surface is now exhibited than at any period since the late extensive loss of substance. The integuments surrounding the ulcer are reddened and thick, and devoid of tenderness. Latterly he has suffered but little. Mr. Green has once proposed to the patient the removal of the diseased textures, with a portion of the lower jaw, (the outer table of which is, in his opinion, implicated in addition to the periosteum,) and making a new lip from the skin on the side of the neck, but he would not then consent. This was above

two months ago, when the ulcerated surface was scarcely half the present magnitude, and in a quiescent state. The same ultimate resource has been a second time submitted to the man's consideration, and it having met entirely with his own concurrence, Mr. Green will in a few days undertake the operation.

17th. Previously to describing the operation, that was practised on this day, we will give a more detailed account of the actual state of disease in the softer parts, and of the appearances indicating the implication of bone. The substance of the inferior labium is totally extinct, and that covering the chin nearly to the lower border of the symphysis is likewise lost, with the exception of an indurated and projecting lump at the left commissure, and about two lines in width. An irregular cancerous surface is displayed, but tolerably clean, one very minute sloughy point being perceptible in its middle; it possesses very slight fetor, the discharge being scanty; the surrounding integument is condensed in texture, very solid and firm to the touch, and of a peculiarly dark red discolouration. The incisor teeth are loose, blackened, and agglutinated together by morbid tartar. As the anterior and upper portion of the symphysis is covered merely by thin and diseased granulations from the mucous membrane of the alveoli, the periosteum is no doubt affected, if the granulations be not in fact arising from this latter, and consequently the outer table of the inferior maxillary bone is likely to be unsound. The disease is not at this present period in an active state, pain being unimportant, and no loss of substance having recently occurred. Some febrile action was at one time apprehended from flushing of the cheeks, and excited eyes, but this condition has subsided, the latter symptom excepted, which has continued to this date, though it is less remarkable. His rest has been undisturbed, and the appetite, together with the proper performance of the functions of his alimentary canal, is not impaired. There exists no glandular enlargement in the neck, nor has such been noticed but on Jan. 18th; it disappeared soon af-

terwards, and was therefore attributable to the local irritation of the diseased lip, and not to malignant absorption.

On consultation with his colleagues, Mr. Green was induced to remove the disease with the requisite portion of the jaw, and then simply to adapt the parts for the present, in order that some adhesions should be formed around and between the extremities of the bone, which would thus acquire a fixed situation, and to which a new lip would be hereafter applicable, in case the cancerous disease should not return. He had ascertained, from careful comparison by means of wax models adjusted to the chin and neighbouring parts, that a very considerable piece of skin would be required for the formation of the lip, that would extend from the os hyoides nearly to the clavicle, if taken from the middle of the neck; therefore it was resolved to procure it from the side in preference to exposing the larynx and trachea anteriorly; and a portion of this size would necessarily demand firm support in its new situation. The idea of completing the whole undertaking at once was for these reasons abandoned, and the steps pursued in the amputation of the maxilla will be now related.

Operation. The first incision was made on the right side of the mouth a short distance internally to the angle, (barely half a line,) and carried downwards and forwards, with the convexity looking outwards, to the median line of the neck, about half an inch below the mental symphysis; this was met in the latter situation, where the muscles attached to the bone posteriorly were exposed by the knife, by a corresponding one, commencing at the commissure of the opposite side. Thus, the whole diseased part and the reddened integument around it were of course inclosed in their area. The labial branch of the external maxillary artery was divided on either side, and immediately tied. A third vessel near the centre of the wound, probably given off from the lingual, was also secured on the right side. The bone was in the next place denuded by detaching the enclosed morbid mass in front, and found to be rough in several

points; the periosteum was soft and thickened on the left horizontal ramus so far back as the first molar tooth. It was therefore necessary to extract the left second bicuspid; but the membrane was not involved to an equal extent on the right side, from which the first bicuspidatus had been removed previously to the patient's being brought into the operating theatre. The handle of the knife was now passed from below upwards close to the internal surface of the bone into the cavity of the mouth, where it was liberated by a division of the mucous lining, and it was held steadily in this direction during the process of sawing, to protect the tongue. Hey's saw was first applied on the right, and then on the left side, and afterwards a narrow and longer instrument was more efficaciously used. The hard substance being cut through, was gently elevated by the handle of the scalpel, and the entire anterior portion of the lower maxilla between the points above specified, viz. the first left molar and the second right bicuspid tooth, was readily loosened from the horizontal branch of each side, being now retained only by the muscles connected to it. These were cautiously and slowly separated close to the inner side of the mentum by a sharp-pointed and straight bistoury, and in consequence of strong spasm of the muscles of the tongue, which produced coughing and violent expectorating efforts, some delay was necessary, so that all the muscular origins were not disengaged at once. Rather free hæmorrhage took place from the tip of the tongue, which, however, speedily ceased, owing to the very great retraction of the divided muscles. The two remaining portions of the jaw admitted of being approximated within an inch and about one line from each other, and the interspace was occupied by the tongue, which was now sunk below the natural plane. No other ligature was called for, and the spasmodic action soon terminated. A thick pledget of lint was interposed between the smooth bony ends, in order to keep these last steady; and the parts were further supported externally by three long strips of adhesive plaister, carried from one

temple to the other, round the lower part of the face. The external wound presented an interval agreeing with that between the ends of bone, which was thus covered over by plaster and filled with lint. Additional support was also given to the face below by a four-tailed bandage fastened at the vertex. The upper jaw now very considerably overhung the vacuity arising from the removal of so large a portion of the lower, but the dressings afforded comfort to the patient. During the operation, which lasted upwards of half an hour, the poor fellow was extremely quiet, and made scarcely any complaint; even whilst the inferior dental nerves were severed by the saw he did not shrink from the pain. He was occasionally low, but revived by cold water dashed on his face, and a little taken into the stomach.

Being conveyed to bed, he was placed nearly erect as to the upper half of his body, as in this position alone was respiration unaffected. Some slight depression came on about half an hour afterwards, but was of short duration; at this time his breathing was very calm; the pulse, which had previously been full, of considerable power, and at 100, was accelerated and smaller; and a damp and chilly state of skin likewise subsisted during the same period.

8 o'clock *p. m.* He breathes freely, and has made no sign of complaint—pulse 100, of moderate strength. Has made water, but in small quantity. No bleeding has taken place. Feels inclined for sleep.

June 18th. Night has been tranquil, and he has slept for some hours; skin rather hot, though moist; pulse 118, full, compressible; face not heated, but somewhat red—urine high-coloured—no stool—dressings easy, and retained in situ. The nourishment taken has consisted of barley-water, given through a common syringe and gum elastic tube, the extremity of which is placed at the back of the tongue, and deglutition appears surprisingly easy.

19th. He has been undisturbed by difficulty of breathing, or uneasiness in the

wound. Some little cough has been excited from the accumulation of mucus at the upper part of the pharynx. He slept for many hours last night, and feels refreshed and comfortable. Pulse 92, soft, and moderately full—skin moist, and temperate—no motion has been passed from the bowels. Linseed infusion and milk have been exhibited by the syringe and tube.

20th. No untoward symptom has appeared, he having been troubled with occasional cough only, from the same cause as yesterday. Pulse 88, tranquil, and compressible—skin cool. The whole of the dressings were taken off, the plaisters having become offensive and dirty. The wound was much contracted and perfectly clean at the upper part immediately adjacent to the tongue; lower than this, there is a slough discernible; the external edges of the wound are in a slight degree foul. Lint, broken up into small pieces, was gently inserted into the cavity below the tongue, and the strips of plaster put on in the same manner as before. During the last twenty-four hours he has consumed a pint and a half of milk and linseed tea, and he is now allowed some beef-tea in addition. These fluids are readily swallowed, when thrown into the upper portion of the pharynx. One stool has been obtained this morning from an injection of gruel and common salt.

21st. He has passed three hours in continued sleep during the night; his skin is cool; pulse 88, not so strong. Being supported by pillows, and the spine erect, he breathes naturally. The cough, however, has been more troublesome, and he refers to the inferior part of the trachea as painful, particularly in the act of deglutition. Neither redness, nor heat beyond the ordinary temperature of the surface, is to be detected externally. The adhesive strips are fixed comfortably in their position of yesterday, though moistened by the free escape of saliva from the mouth; they were not interfered with. He has not yet had an alvine evacuation to-day. Eight leeches were ordered to the throat.

22d. Pain of throat and dysphagia relieved. No unfavourable symptom is to be

mentioned. Dressings were again taken away, and similarly re-applied. The slough on the portion mentioned is merely superficial granulations being visible behind it; no suppurative discharge. Bowels acted once last night, and this morning also. Nourishment to be given in the same quantity and manner as heretofore.

23d. Perfectly easy. Pulse 80. Bowels open.

24th. Wound again dressed. The slough alluded to is already nearly cast off; granulations are springing up from the bone on both sides, and in every part of the wound. Little or no suppuration is yet established. The tongue appears in some degree enlarged and rounded towards the apex, and also protruded forwards. He is quite destitute of any constitutional derangement. A fetid and peculiar odour (similar to that from a carcinomatous ulcer) has arisen from the dressings, and is still perceptible. These were put on in the former mode. Soft biscuit, steeped in milk, has been supplied through the tube.

25th. An enema has been administered to open the bowels, and one evacuation solicited. Everything connected with the wound is going on well, but the tongue has become dry at the point and enlarged, from the constant exposure, giving rise to thirst and much local uneasiness. A piece of oiled silk was directed to be placed in front of the mouth and wound, to be secured at the sides of the face to the roller passed over the head, for the purpose of preventing the contact of air. The dressings have already become foul since yesterday; the fetor from the wound is excessive, and, accumulating in the night, it renders the whole apartment greatly contaminated by morning.

26th. The dressings were re-adjusted, and the surface exhibits more conspicuous granulations, which now secrete pus; those from the divided ends of bone are also healthy and abundant. The tongue is not dry to-day. He is able to speak intelligibly, and the efforts are not painful to him. Another purgative injection was this morning required. The straps are applied with pretty firm pressure so as to contract the extent of the wound.

27th. Much the same. Yesterday he had half a pint of porter, which was taken in the same way as the other fluids, and his pulse possesses at present a little more power. He has also beef-tea, with milk and biscuit.

28th. A remarkably florid and healthy appearance is presented by the whole surface of the wound, which is even now considerably diminished; and the patient is much better for the allowance of porter. His speech is daily improving, and the tongue does not project in the same inconvenient manner. Mr. Green gave permission for him to take a little meat, reduced to a pulpy consistence, in his beef-tea. The soft lint is laid upon the granulations, and the edges confined by long pieces of adhesive plaister.

July 1st. An extremely healthy state of wound continues under the same local remedies, and it is further diminished since our last report. The pulse has regained its natural power, and remains at 80. He takes the meat in pulpy form without difficulty, and his bowels are free.

5th. Wound is contracting, and very clean. Patient devoid of uneasiness, or complaint.

12th. Has been doing well in every respect. The surface of the wound is of a florid colour, and becoming less daily. He can now feed himself with a spoon.

14th. Diarrhoea has supervened to-day, accompanied with a distressing weight and uneasiness in the epigastrium; but there is no abdominal tenderness, and little pain with each evacuation. The condition of the wound is unaffected.

16th. The disturbance of the bowels has ceased under the employment of the common astringent mixture, and he is now free from the concomitant uneasy sensations within the abdomen. During the last week the granulating surface has remarkably lessened, and has cicatrized at the inferior edge, so that nearly the entire wound is internal to the mouth. Dry lint and adhesive plaister are alone used, and daily.

30th. Some little hardened points of granulation have formed at the edges, and have been increasing somewhat in size and

number, but the wound itself is reduced almost to nothing. He feeds himself without difficulty, and is permitted to sit up. One black spot is observable at each bony extremity.

August 16th. Two pieces of bone have exfoliated from the ends, which are now covered over. The little projections, like warts, noticed in our last date, have been got rid of by touching them with sulphate of copper, and the cicatrix is perfected. The man is quite recovered, and walks about in the squares of the building. He gradually acquires more power of retaining saliva, and his pronunciation is growing more distinct. The accommodating processes of nature, after wounds and other injuries, are extremely well illustrated in the little deformity at this period manifest. Contraction of the aperture has been continually going on, as well as approximation of the skin from each side to the centre; and a very slight additional portion of integument, if any, on the present chin (may we so call it,) will be requisite for the purposes of a lip.

It is with great pleasure we state, that the operation is likely to be followed by the success due to its novelty and boldness, as the cicatrized wound betrays no tendency to returning malignant action. We have been informed of a case of the same disease in which a method nearly similar was adopted many years ago by M. Dupuytren, at the Hôtel Dieu, and with a favourable issue. In those examples of cancer of the lip, where the bone is affected, it is conceived that this operation may advantageously be had recourse to, and therefore we beg to submit the above case to the attention of those surgeons, who are daily called upon to use the knife—the last resource of our art.

CASE 2. Sloughing Ulcer of the Ala Nasi, and foul Ulcer on the Thigh, from Syphilis—Edematous Swelling of the Lower Extremity. Inutility of the remedies of Mr. Wall.—Cautious Administration of Mercury successful.

Alexander Braham, æt. 30, was received into Job's ward, under the care of Mr. Green, October 21, 1830.

Situated on the right side of the face, there is a foul and black ulcer, which has destroyed that side of the nose and the adjacent portion of the cheek, and has also formed an aperture through the superior maxillary bone, whereby the external wound communicates with the upper part of the pharynx by the nares. The hard palate is also lost to some extent. Upon the surface of the ulcer there are dark and dry sloughs, which seem but little disposed to separate. There exists, likewise, a circular sore, of a most unhealthy appearance, on the left thigh, about its middle. He has general pains of the joints and limbs, and is suffering much from debility; his rest is disturbed at night, when profuse perspirations have frequently taken place, pulse 120, sharp and irritable, though weak; tongue white, but moist; bowels costive; has been in the habit of taking opium to procure sleep by night. The patient left the hospital about six weeks ago, having staid here in Lazarus ward (venereal) nearly three months; he was then admitted for eruptive disease of the skin, and his mouth was made sore by mercury.

Mr. Green ordered, Opii, gr. ij., o. n. Ext. sarsæ, ʒj. Ex. decoct. sarsæ co. Oss. b. d. Milk diet.

October 29th. There is very little alteration to be observed in the condition of the patient. The ulcer of the nose is in much the same state, as also that on the thigh. Some little rest is procured by the opiate. His strength he finds not improved, and the bowels are costive and irregular. Remedies continued. To have arrow root, and Mist. sennæ comp. occasionally.

Nov. 12th. The nightly perspirations have ceased, but are succeeded by diarrhœa, which is accompanied with considerable griping pains, but no tenderness of the abdomen. The fætor from the nose is somewhat less, but the appearance of the part is not changed; the sore upon the thigh is diminished, and healing in a healthy manner. Pains in limbs are considerably relieved, and having had an extra allowance of meat, he has, previously to the present attack in the bowels, suffered less from debility. Pulse

100, and feeble—tongue clean, a little whitish.

Ordered, *Mist. cretæ co. ʒiss. 6tis. horis.*

14th. Patient was attacked early in the morning with chilliness and great increase of debility. Swelling and redness, with pain and a severe sense of distention, immediately commenced in the left groin and proceeded rapidly down the limb, even to the toes. At 9 o'clock the sister acquainted Mr. Whitfield of the circumstance, and the patient was visited by him at twelve. A powder of rhubarb and calomel was prescribed to be taken instantly, and spirit lotion ordered to be applied cold to the whole limb. We saw him at one o'clock, and there was a very marked change in the man's countenance—it was anxious and extremely depressed—his manner was hurried and fidgety—the pulse was 144, very feeble but regular—tongue dry, and red at the apex. No sickness, nor vomiting had occurred. He had just taken the powder. The left lower extremity was swollen to twice its natural size, from the groin downwards; the surface was of a livid red colour, which was diffused universally over the limb, with several darker and superficial spots on the thigh, not unlike to those of *purpura hæmorrhagica*, but occupying merely the cuticle and not being circular. There was exquisite tenderness on the slightest touch, yet no alteration in temperature. The sore, which yesterday looked remarkably healthy, was of a dark crimson hue, almost black, having a blueish circumference; and its secretion was suppressed. The limb felt cold to the patient, especially at the toes, but was not painful. No pulsations of the artery at the groin were perceptible; firm pressure was not made with this view, as it would have caused unnecessary agony.

Was ordered, in addition to the above, *Mist. pot. citrat. efferv., 4tā. q. h.*

8 o'clock, *p. m.* Limb is in the same state, excepting that the spots mentioned above have increased somewhat in size, and are now visible on the leg and foot. Pulse 144, weaker than in the morning. No motion has yet taken place from the bowels—there is no sickness—urine very scanty, and high-

ly tinged—tongue as in the morning. To have an injection immediately, and continue cold lotion.

15th. 9, *a. m.* Pulse 168, fluttering—countenance, however, less depressed—tongue unchanged. He got no rest during the night. Swelling and redness of the limb rather less, and the spots are not so conspicuous—pressure can now be borne. Bowels have acted twice since the glyster was thrown up, which also brought away a copious stool. No difference in the sore upon the face.

Wine, ʒj. 6tis. horis. *Quinæ sulph., gr. ij., 4tis. Cont. opii, gr. ij., o. n.*

3, *p. m.* Pulse varies very much in number, being at one time beyond 120, and at another not more than 100, it is excessively feeble. The leg is easy, but the surface very cold. Lotion omitted.

16th. Patient easy, having passed a good night; pulse as yesterday—limb of the same size. An abscess appears to be forming a short distance above the heel, there being a soft prominence in this situation. Mr. Green visited him, and ordered wine and nourishment, with fomentations and flannel to the whole extremity.

Ammon. subcarb. gr. x. Tinct. opii. ʒj. v. Mist. Camphoræ, ʒiss. 6tā. q. hora.

17th. Passed a tolerable night, and very little change has ensued—limb not so frigid, and the swelling noticed yesterday is subsiding. A large piece of bone, nearly black, has exfoliated from the palate through the nose. The ulcer has not increased in dimensions.

18th. Pulse 120, irregular and very feeble. He has, nevertheless, slept well, and his tongue is less red. More tumefaction is observable above the heel—the limb in other respects is not changed. Bowels act freely, and the stools re watery.

19th. A superficial slough has separated from the sore upon the thigh, and left a healthy granulating surface. The patient feels generally better, but not in any important degree, and takes nutriment in good quantity. Pulse more regular, 110—bowels continue relaxed; the stools are of natural colour, and not preceded by pain.

Mist. cretæ, c. ʒiiss. Tinct. catechu. ʒj. 6tā.
q. h. Cont. cætera.

Nov. 21st. Pulse 96, regular, and much stronger—tongue not red, nor dry—bowels quiet. Foot and lower part of leg have become considerably enlarged from œdema. The swelling and discolouration superiorly have very much diminished, and there is no tenderness here on pressure. He rests better, and has no nocturnal sweatings. Ulcer on nose is not cleaning, but appears rather larger, and continues horribly offensive.

23d. Tumefaction is still subsiding, and the patient much improved. Ulcer of thigh is of healthy aspect, and ordered to be strapped. He complains of want of rest only, but his appetite has increased. Extr. conii, gr. v., ter die.

24th. Some swelling and tenderness exists at the back part of the opposite thigh, and three or four tuberculated scabs are upon this limb. Pulse 120, rather irregular; tongue clean, and moist.

27th. Foot and ankle are much less; the leg and thigh are returned to their natural size; and the sore is looking healthy, and diminishing.

Dec. 1st. There is no enlargement of the left lower extremity remaining; the sore is healthy, but its granulations are very small. He complains more of the other thigh. The ulceration upon the face has rather spread latterly. He is ordered to fumigate the nose.

4th. He thinks the sloughing ulceration of the nose is checked, with diminution of pain in that part. His health is amended—pulse 100, regular, and more powerful—nightly rest is better.

Mutton chop. Porter, ʒij. daily.

7th. The tuberculated spots on the right thigh are sloughing, but not painful. Mr. Green to day decided on exhibiting mercury, now that the man's health is in general respects improved, and as it was obvious the ulcers in different parts would not heal, nor probably assume any other appearance, unless the remedy were employed. He ordered unguent. hydr. ʒss. to be carefully rubbed in every night, and that the patient

should not be distressed by the exercise required. Cat. lini, et Lotio chlorid. calcis, to the thigh.

14th. Sores on the legs have increased by sloughing, which is now at an end. Pulse is in some measure fuller, at 128, but not hard—skin warmer—no nightly sweats—bowels regular.

21st. The ulcer of the nose has spread on both sides, but its edges are clean and have tolerably red granulations. Very little alteration is observable in the general condition of the patient, which has hitherto varied much from day to day—the pulse, in particular, has been far different at one time from what it is at another; it is now beating 144. The mercurial friction and fumigation are persevered in, and the exertions disturb in a very trifling degree.

24th. Ulcer increasing on the face; those upon the extremities look well, and are diminished. His appetite is good, and he takes the nourishment allowed—sleeps well—pulse 140, of the same character.

28th. Diarrhœa again supervened yesterday but has abated. His strength, notwithstanding, is certainly augmented; the pulse, too, has become stronger; and the sores shew a much healthier surface, though that on the face has increased, and is increasing, and possesses an irritable and red circumference very favourable for the progress of ulceration.

31st. Has rested longer the last two nights than at any period since his admission. Sores are of almost the same appearance, and afford an abundant purulent secretion. The gums are sore and spongy; the rubbing in was intermitted last night by the sister in consequence, but Mr. Green has ordered it to be resumed. Wrists, and elbow of left side, have recently become enlarged, tender, and puffy, without external redness. Bowels quiet.

1831. Jan. 3d. A fresh ulcer has broken out on the right leg, sloughy and painful; the one occupying the face looks nearly as heretofore, being in some parts cleaner than in others. His appetite is excellent, and the pulse of more power. Bowels free. A strip of adhesive plaster has been applied

over the ulceration and remaining half of the nose, to give the latter support; but as it produced too much irritation, it is discontinued. Poultices of linseed meal, and the chloride of lime lotion, have been constantly used to all the sores.

8th. The patient's appetite began to fail yesterday, and he finds himself weaker. The facial ulcer has extended in every direction by sloughing, and encroaches close upon the right eye; its surface is very foul; and the ossa nasi, the malar, and superior maxillary bones are exposed and dead. The margin is redder, and will probably soon be absorbed. Pulse is very feeble—the patient, however, is quiet, and does not endure much pain. Sores on the legs are healing fast, excepting the one which appeared last. Friction and fumigation are at present necessarily omitted under these circumstances, and Mr. Green remarked that so soon as the system was brought under the influence of mercury the diseases seemed to give way, in the improved state of the ulcers, but the constitutional powers proved insufficient to maintain the action of that remedy. He would now, therefore, endeavour to husband the strength, and perhaps he might again have the opportunity of giving the specific in question. Ordered. Extr. sarsæ, ʒj. Infus. calumb. ʒiiss. Tinct. calumbæ, ʒj. M. t. d. Nutritious diet to be continued. Chloride of soda in solution, and poultices to the sore.

9th. Is better to day; has more appetite, and the wounds are looking cleaner; pulse has more power—bowels are very comfortably open.

11th. Feels more strength—pulse 130, fuller—appetite increasing. The sore is extending upon the cheek and base of the orbit.

18th. Some slight amendment has taken place in the patient's general health, but the ulcerative process is now advancing on both sides of the nose, and has come close to the left eye.

21st. Ulceration has extended, but the surface is rather improved and exhibits some granulations. Both ossa nasi are denuded even to their connexion with the frontal

bone, and the skin immediately contiguous to the globe of the eye is ulcerated on the left side. Mr. Wall has seen the case, in order to try the effects of his remedy, but has no hopes of its being useful. He said it would be a needless waste of the medicine, but directed it to be employed in the following way. Poultices of bread and milk, in which a decoction of his vegetable is to be mixed up, twice a day; and the sore to be ablated with the decoction, when the cataplasms are removed.

31st. The appearance of the ulcer has become greatly improved, it being now fluid and granulating in one part, and its progress is arrested. In his general condition, the patient also finds himself better, and the ulcers upon the extremities are healing rapidly. Half an ounce of Mr. Wall's decoction is taken internally by his desire, and the other remedies are now discontinued by order of Mr. Green.

Feb. 8th. The patient is so much better that he has sat up for some hours together. He has taken abundance of nutriment, and the sore has put on a surprisingly healthy character. Mr. Wall has ordered three glasses of port wine daily, with two grains of sulphate of quinine in each, and an unlimited supply of fruit, &c.; but these were not sent from the apothecary's shop, being considered unnecessary.

14th. A relapse has occurred in the general health of the patient; and the ulcer is spreading on the right side of the face. Mr. Wall's treatment has been pursued entirely under his own superintendence.

18th. Some sloughing of the surface is further discernible upon the right side, but the nasal bones are covered with granulations. He complains of loss of strength, and rest; pulse 120, feeble; tongue clean; bowels open. The decoction is continued internally, and the wine; with the poultices and the lotion.

26th. No increase of sloughing can be seen. Patient thinks he has of late gained strength and appetite. Pulse 120, regular, and moderately full; tongue red at the apex, but clean; bowels not purged. Seeing the late return of sloughing, Mr.

Mr. Wall has, within the last few days, abandoned the case. Lotio nigra and poultices of linseed meal have been again resorted to.

March 1st. The ulcer has not enlarged. He rests well, and has not lost strength. Mr. Green now prescribed Liq. hydr. oxymur. ℥xxx. Extr. sarsæ, ʒj. Decoct. sarsæ comp. ʒvj. bis quotidie.

Opium to be continued at night. Mutton chops, &c. have not been intermitted.

8th. In the vicinity of the right eye ulceration has in some degree spread, and the surface is foul. He perceives himself amended in the general state of health, and appetite is somewhat greater. Lotio hydr. flava, with the poultices.

22d. Patient has been much in the same way, and the ulceration is rather more favourable towards the eye, and in some parts there are seen small superficial sloughs, but the margin is clean. No healthy, or prominent granulations have sprung up. The tarsal border of the lower lid is implicated in the ulcerative surface, and we may say the external portion of the palpebræ is sacrificed. The medicines are still exhibited, hitherto without producing any sensible specific effect, and the bowels are in a tranquil state.

April 1. Progress of the ulceration has been stopped, and cicatrization has begun at the lowermost part; a spot of ulceration, not much larger than a shilling, remains just below the inferior lid. Same remedies continued.

9th. Patient has progressively improved in every respect, and now sits up. A considerable portion of the superior maxilla and turbinated bones has lately exfoliated, and a large vacuity is formed, leading from the face to the pharynx. An ulcer of healthy aspect and inconsiderable size exists on the right side of the face, a short distance below the tarsus.

30th. Great increase of flesh is visible; the ulceration is much contracted, and no further exfoliation has taken place. Redness of the gums is excited by mercury, and the oxymuriate is left off.

May 12th. Ulceration of the face is now cicatrized, but the deformity is of course very great. The entire nose is wanting, and an opening, larger than usual where this occurs, is presented to view. The sense of taste is perfect, and the hard palate is uninjured.

August 1st. He continues in the hospital, and has very much recruited in strength and plumpness. The integument adjoining to the aperture in the face remains sound, and likely to admit of the adaptation of a new nose from the forehead, which Mr. Green has in contemplation.

We were constant observers of this case, which was for the greater time indeed under our immediate care, and we cannot, in fairness, attribute the marked improvement which succeeded to the application of Mr. Wall to any specific influence upon the ulcer. The patient's system had just recovered from the debilitating effects of mercury, which were greater than it could withstand, by the employment of sarsaparilla and generous diet; and the condition of the surface was improving, together with the restoration of general constitutional power. Any simple and unirritating fluid, with poultices, at the same time, would have been attended with the like result. The little confidence in the efficacy of the remedy, shewn even by Mr. Wall, must be obvious in the report.

CASE 3. Excavated Bubo and Sinuses, depending on Constitutional Derangement. Trial of various Applications with only partial benefit.

Dec. 31st, 1830. James Hearn, æt. 26, has been in the hospital many weeks, indeed since July 29th, for venereal complaints, which have been got rid of by an ordinary course of rubbing in and the local applications here used. Mercury has been discontinued since September. He has a large, irregularly shaped, and hollow ulcer in the left groin, originating in a bubo which was opened shortly after his admission. The edges of the ulcer are elevated much above the surface and extremely callous, and have been twice pared with the knife. It is rather narrow, passing obliquely down the

fold of the groin, and then taking an horizontal course inwards towards the symphysis pubis, displaying very few and small granulations at the bottom, but there is a copious discharge of healthy pus from it. Endeavours to heal the sore have been made for some time with the red precipitate sprinkled upon the surface and dry lint then applied, a considerable degree of pressure being exerted at the same time against the hard and prominent margins by strapping. These means have been employed nearly a month, and we can observe only very slight amelioration, if, indeed, any, in the condition and aspect of the ulcerated parts. The patient has experienced pretty severe pain from it, particularly after each dressing.

The ulcer was to-day filled with wax, heated to the temperature, and in the manner recommended by Mr. Stafford; some strips of empl. resinæ were laid over the wax when cooled.

We were told by the patient in the evening that the application had afforded him greater ease than he had derived from any previous one, and the relief was uninterrupted.

1831, Jan. 2d. The wax application has been attended with local ease till this morning, when we found the dressings loose, and the discharge, which was very abundant, mixed with the wax in a half-fluid state. These were removed, and the wound cleansed, but we could not yet perceive any improvement in it. Wax was re-applied, with the plaister, in the former mode.

6th. Says he has suffered more pain latterly from the present local remedy than he did from any other. A very profuse purulent discharge is daily taking place, and there is no change observable in the condition of the ulcer.

8th. Wax was again applied, after being kept on four days. The surface of the sore is certainly improved in appearance, but not contracted in dimensions.

18th. The edges are somewhat lower; the excavation appears less deep, and more inclined to produce healthy granulations. Continue.

22d. By Mr. Green's permission Mr.

Wall visited the patient, and directed a decoction of his vegetable preparation to be mixed up with poultices of bread and milk, and these to be applied twice a day; after their removal, the surface to be also washed with the same liquid.

27th. The part has been comparatively free from pain; some whiteness is seen around the edges of the sore, attributed to the fluid used. Its surface, too, is cleaned by the poultices.

Feb. 1. The sides are still lower, and there is less excavation than we have yet witnessed, and the ulcer exhibits a more favourable aspect for healing.

8th. Sore has cicatrized in the centre, and the borders are more depressed. Pulvis cinchonæ, with the decoction and oatmeal poultices, has been employed to fill up the cavity under the direction of Mr. Wall.

16th. A large portion of new skin has been formed in the centre, connected by a narrow process to the surrounding integument; the elevated margins, formerly existing, are very materially altered both in height and their indurated character. Continue.

26th. Complains severely of pains in the ulcer. His countenance has become peculiarly pallid and wasted; general emaciation is likewise discernible; some cough, and other symptoms of pulmonic disorder.

March 11th. Constant pain is present in the ulcer, the condition of which is unaltered. Mr. Wall has not seen the man for many days, and consequently the dresser has had recourse to black-wash and poultices.

15th. The patient is forsaken by Mr. Wall, who has left the ulcer both larger and in a more foul condition than he found it. Equal parts of pulvis calaminæ and prepared chalk, with which the hollow sore is to be filled, have been ordered.

22d. Some inconvenience has arisen from the fetor produced by the powder absorbing the discharge, which, when dried, forms into cakes. The sore has been easier, but the surface has not yet been exposed to view since it was first covered over with the present remedy. Patient has some cough, and his countenance indicates organic dis-

ease within the chest, the features being contracted and sharp from wasting of flesh, and the eyes bright. But there is neither thoracic pain, nor dyspnoea, nor expectoration. His rest is broken at night; no nocturnal perspirations. Pulse 96, small, and weak. Tongue moist and clean. Bowels are rather obstinate, requiring house-medicine occasionally. Mr. Green prescribed Quin. sulph. gr. ij. Acid. sulph. dil. ℥ v. Infus. rosæ co. ʒj. M. ter. quotidie sumend.

April 6th. No improvement is manifest in the condition of the ulceration, but there has been some diminution of local pain. State of general health the same. The powder is omitted, and a lotion composed of oxide of zinc and lime-water (about ʒj. to the pint) is applied on lint three or four times daily. This is an application which Mr. Green has recently introduced, and employed beneficially in two or three instances of impetiginous affection of the skin. It seems to act as a local sedative, and purifies the parts with which it comes in contact.

28th. The ulcer is so far reduced in its dimensions that a line of granulations only exists at present, not more than an inch wide, of a florid colour, and clean. The lotion last specified has been continued, and patient's health would appear to be in a slight degree improved.

May 26th. Two or three sinuses have been opened, which led from the groin to the upper part of the scrotum; the old sores have advanced but little further in the process of cicatrization. His countenance remains of the same pallid hue. Lotion still employed, with poultices to the recent sores.

June 21st. The parts have been gradually healing with the same applications; three or four small and healthy ulcers are now observable in the midst of a large and irregularly-shaped cicatrix occupying the whole inguinal region.

July 12th. Fresh and sinuous ulceration has again taken place between the thighs and scrotum, from which there is a copious discharge of pus. The former sores are nearly well. Patient continues remarkably pallid; his looks are very unhealthy, but

he has neither cough at present, nor pain of chest; the pulse is at 90, and small, and weak. The lotion is applied to the original sores, and linseed poultices to those which have lately broken out.

August 18th. The ulcers have somewhat contracted, and grown cleaner. But the health of the patient seeming to decline, he was now removed into the country by his own desire, and with the concurrence of Mr. Green.

The method of treating excavated ulcers with wax, as advised by Mr. Stafford, has been practised to some extent in this hospital, especially by Mr. Travers, and generally with good effect.

II. CARCINOMATOUS ULCERATION OF MAMMA.

As we have commenced our present quarterly report with a remarkable instance of cancer, the following case may be here appended, demonstrating a fact which very rarely occurs, viz. the healing of a genuine carcinomatous ulcer.

Sarah Creed, 33 years of age, unmarried, and in a more respectable class of society than the greater number of hospital patients, applied at St. Thomas's Hospital, May 3d, 1831, and gave the subjoined account of a cancerous ulcer situated on the left breast.

As far back as seven years ago she observed a tumour on the right side of the nipple, the formation of which she is now inclined to assign to having taken cold after a wet journey; it was rather hard, and distinct upon manipulation from the natural structure of the organ; however, it acquired no magnitude and did not give rise to suffering, except an occasional lancinating pain at long intervals, and six months since it was not equal in size to a walnut. Subsequently to the latter distance of time she has consulted an irregular practitioner, and rubbed over the part an ointment that would appear to have been of a stimulant and irritating quality, as very soon after it was used ulceration of the integuments took place; and to the application she refers the early occur-

rence of this process. For the last three months, therefore, there has been a superficial ulcer on the left side of the nipple, which is now covered by a thin and vascular cicatrix of a red colour, a little larger than a half-crown-piece, and is surrounded by very great hardness and thickening of textures. Still nearer to the nipple, and on the same side, the skin is destroyed by a small slough, and on the right side a second exists, the nipple itself being entire, but in some degree sunken, or depressed, between them. The pain that has been experienced latterly cannot be considered severe, having principally occurred during the advancement of the sloughing action; and accordingly it has not been constant. The sound portions near to these sloughs are also ulcerated. Gravesend has been the residence of the patient. She has the appearance of a healthy woman; the breasts are large and well developed, and the catamenia have been perfectly regular; her spirits are low; she seems very anxious about her case; tears readily come into her eyes, and she often heaves a deep sigh whilst expressing regret at having lost so much time in the trial of useless and ill-advised remedies. Her appetite has been at no period as great as that of most people, but it has not recently declined; the tongue is moist and rather white, but not loaded; pulse 90, rather sharp—no thirst—bowels are in a free condition. Rest at night greatly broken, chiefly from mental excitement. *Cat. panis bis die* to the breast.

May 6th. Some little increase of sloughing is observable on the right side of the mamma, where more pain has been for a short time felt, but that on the left is separating and the surface underneath would seem to be granulating. A few hours rest was procured last night, but during the preceding two her eyes were scarcely closed. Continue.

23d. The slough is detached from the left side of the nipple, and the granulating surface has rapidly and perfectly cicatrized. Upon the right of the same process a large hollow space is formed by sloughing ulceration, and the excavation is tolerably clean, of a pale red colour. The surrounding

hardness is somewhat less perceptible, and there has been very marked remission of pain, but three or four small glands are to be distinguished in a chain, commencing from below the nipple and passing towards the arm-pit; they are quite superficial, indurated, and destitute of pain or tenderness, though none reach into the axillary cavity itself. It has not been mentioned that we could discern no glandular swelling in this situation at her admission, and that the patient has never been sensible of any. Her general feelings have improved, together with a better appetite, and a more cheerful countenance. The bowels are in a regular state, and have not required the use of medicine. She has been taking, since the 10th, *Pil. sapon. c. Opio, gr. v. o. n.* which has procured ease and rest; and *Extr. sarsæ, ʒj. Decoct. sarsæ comp. ʒvj. b. d.* The present ulcer is covered twice daily with dry *lapis calaminaris*.

June 1. She declares herself quite free from pain, even at intervals. There is no manifest change either local or general, and the same remedial means are continued.

11th. The ulcer is contracted in size, and yields very little discharge. Some pain has been of late endured, and one of the axillary glands is swollen to the capacity of a filbert, but not tender nor painful. *Pergat.*

21st. No discharge has recently taken place from the ulcer, which is protected by a firm and excavated incrustation. To-day she has suffered from severe pain situated a little above the nipple, the part being also heated. The state of the glands is not altered. A lotion of spirit of wine was ordered to be applied to the seat of pain.

28th. The pain has ceased, and the ulceration, although truly cancerous, is quite healed, the cicatrix being thin, and perhaps more properly a crust. But a more distinct and deeply-seated hardness is felt within the substance of the breast, branching out in various directions from the nipple, more especially upwards. The superficial chain of glands below have a reddened surface, and are very tender. Patient's general health

is still unaffected; in fact, she avers it is much better, and her spirits are excellent; she believing (would we could do the same!) that her breast will soon be cured. Same local applications.

July 1st. The pain has again increased. Twelve leeches to be applied.

6th. Has found complete relief from the leeches; some pain remains in another part of the gland, with slight local heat. Cold lotions continued, with the pulv. calaminæ.

12th. Owing to augmentation of pain, the leeches have been repeated, and procured effectual alleviation. Greater superficial redness of the smaller enlargements has been latterly observable, which last are encroaching towards the right mamma. Her internal medicines and the topical remedies are persevered with.

21st. She was made an extra-patient this day, partly at her own request.

An ichorous discharge has been flowing from the circumference of the mammilla, where there is a slight fissure. Her mixture and pill are to be continued; and the pulv. calaminæ applied to the nipple. She returned to Gravesend.

August 19th. The patient appeared at the hospital to day; little or no change is manifest in the state of the disease, and her health is corrected by residence in the country. Same means were directed by Mr. Green to be continued.

That the disease will ultimately prove mortal, no one who has witnessed it can doubt. At the same time, the temporary, though complete, cicatrization of the sore, has tended in no small measure to allay the poor woman's distress and anxiety of mind; and thus her life has been prolonged, and her sufferings, far from being aggrandized, are now not worthy of mention.—BETA.

III. ANEURISM OF THE AORTA BURSTING THROUGH THE LEFT LUNG INTO THE THORAX.

Edmund Nicholson, a fine muscular man, was admitted into St. Thomas's Hospital, April 7th, 1831. He stated that, on the

28th and 31st of the preceding month, he had brought up a large quantity of blood during a violent fit of coughing. According to his account he brought up lbj. on the 28th, and as much as lbij. of blood on the 31st.—the first blood coughed up was arterial—on the second occasion it was dark and coagulated. He has now cough, which is occasional, slight, and teasing, but does not come on in violent paroxysms—small quantities of coagulated blood are frequently brought up. By the stethoscope there is found to be too little respiration over the front and upper half of the left side of the chest, with a crepitous rattle. He says he has occasional palpitation of the heart—and that he has been ill a year.

He was immediately cupped to xxij. —and, during this and the following month, blood was extracted, either by the cupping-glasses or lancet, every 3d or 4th day; sometimes even more frequently. A succession of blisters were applied to the chest, and he was kept on very spare diet. By this rigorous plan of treatment he so far recovered as to leave the hospital on the 23d of June, but on the 7th of July he again presented himself, having been suddenly seized with a fit of coughing, during which he brought up a large quantity of blood: he was immediately bled to xxvj. and had cold fluids given to drink. About 9 o'clock he had further hæmorrhage—was ordered plumbi acet. gr. j., opii, gr. $\frac{1}{4}$, 4tis horis, and to have thirty leeches applied to the chest. He became tranquil, and had some sleep during the night—but early on the morning of the 8th he had another violent fit of coughing, brought up above a quart of arterial blood, and immediately expired.

Sectio Cadaveris, seven hours after death.
The body was completely blanched. On removing the sternum and cartilages of the ribs, the left pleural sac was found completely filled with partially coagulated arterial blood. The upper part of the lung felt dense, elastic, of a very unusual globular form, and much increased in volume. When the blood had been removed (of which there was between 2 and 3lb.) a rent was found in the anterior part of the upper lobe of the

lung, of sufficient size to admit a finger to pass with ease to a large cavity, into which the upper part of this viscus was converted—and from which the fatal hæmorrhage had taken place. The edges of the opening were ragged, and quite recent. Some old adhesions were divided, and the whole contents of the thorax then removed. The aorta was next slit up, when a smooth circular opening of an inch in diameter was found in the concavity of the arch, just as it turns round the root of the left lung, from which a finger could be passed into the large cavity just described, and consequently into the thorax, by the rent of the lung. It was now apparent, that the globular appearance of the upper half of the lung had for its cause an aneurism of the aorta imbedded in its substance; the direction and progress being determined by the proximity of the root of the lung, and especially of the origin of the left bronchial tube. The aneurismal sac and pleura pulmonalis alone remained at the most superior part; the pulmonary structure having entirely disappeared by progressive absorption: this part was also the thickest of the cavity. The rent was at the lowest part of the cavity, and in this situation the sac was thinner than elsewhere. A very close adhesion had taken place between the origin of the aneurismal sac and the bronchial tube, and ulceration of one cartilaginous ring, for a line and half in extent, had taken place. A small quantity of blood was found in the left bronchial tubes, as well as in the parenchyma of the lung. The heart was not larger than might be expected in so muscular a man; and the arterial system was remarkably free from disease.

IV. PARAPLEGIA FROM SCROFULOUS TUBERCLE IN SPINAL CHORD.

Daniel Rennet, 9 years of age, of scrofulous appearance, was admitted into St. Thomas's Hospital, April 15th, 1831, for paralysis of the inferior extremities. It was stated that the paralysis had come on rather suddenly, and that it had affected the left

leg four weeks ago; the right retaining its power until one week ago. He has now entirely lost all power of motion and sensation of the extremities and trunk, as high as the sides of the thorax—has no pain of the back—there is no irregularity of the spine—nor does he complain of any pain on pressing or striking the vertebræ. The limbs are contracted towards the trunk, and are rigid. He complains of constant pain of the abdomen—bowels constipated—appetite rather voracious. He had simple aperient medicine given in the first place, and was then put under the influence of mercury, but without any benefit being derived, the strychnine was then commenced in doses of one-twelfth of a grain three times a day, and steadily increased in quantity until he took the one-sixth of a grain in each dose. The full effect of the medicine was produced, viz:—frequent severe spasms of the muscles of the lower extremities, by which they were forcibly jerked up to the trunk, accompanied with considerable pain: the dose was diminished, and persisted in during a month, but without any amendment. The paralysis is undiminished—his abdomen became swollen and tumid—emaciation took place, notwithstanding wine and generous diet. Sloughing of the nates took place, and he died June 22d. In the post-mortem examination, a scrofulous tubercle was found imbedded in the spinal chord, in the situation of the second dorsal vertebra. Its situation was in the substance of the chord itself, the membranes being scarcely adherent, and turned down with the greatest facility; the *whole* of the medullary matter originally occupying the situation of the tubercle had been absorbed, leaving it (the tubercle) and the membranes, the only media of connexion betwixt the upper and lower portions of the chord. The size of the tubercle was that of a large hazle-nut; the colour yellow; structure firm, with the centre a little softened; presenting all the characters of an ordinary scrofulous tumour. The chord below the situation of the deposit was of usual size and texture. The mesenteric glands were all much enlarged, and contained sundry scrofulous matter in their inte-

rior—some had gone on to the formation of pus. There was likewise some scrofulous matter deposited in the lower part of the right lung.—DELTA.

LIV.

A MANUAL OF MEDICAL JURISPRUDENCE,
&c. By MICHAEL RYAN, M.D. Octavo,
pp. 309. 1831.

THIS work, which is an elementary compilation from the best authors, interspersed with many original and acute observations, we can only notice briefly, since it is as incapable of being analyzed as a dictionary. If the author only laid claim to the merit of INDUSTRY, that merit would be not a little laudable; but he is, in fact, possessed of great talent as a learned writer, a judicious compiler, and an instructive lecturer. The ability and diligence with which he conducts our contemporary, the MEDICAL and SURGICAL JOURNAL, have made him quickly and very favourably known throughout the profession—and the versatility of his talents as an author and teacher, is exceeding creditable in so young a man.

Dr. Ryan's object, in this cheap and well-constructed volume, is to give a concise, yet comprehensive view of the received principles of medical jurisprudence, and to collect, in a small compass, the scattered and isolated facts from the standard works of legal and medical writers. In many portions of the work, however, Dr. R. is not a mere compiler; for, in both the ethical and legal chapters, he has interwoven a great deal of original—and, what is of more consequence, of enlightened, liberal, and independent remarks, which cannot fail, if duly appreciated, to be of great use to all classes of the profession, but more especially to the junior members. The laws relating to the different orders of the faculty, in these kingdoms, are more clearly enunciated, and more succinctly compiled, than in any other publication in the English or any other lan-

guage. In the sections on medical evidence and the adulteration of alimentary matters, much original and important information is concentrated in a small space.

"In exposing (says he) the absurd distinctions, the defective state of the laws relating to the profession, and the gross abuses of its constituted authorities, the love of freedom and of equality, with an ardent desire to promote the interests of his favourite science and of humanity, have impelled him to declare the truth, however unpalatable that may be in certain quarters, or to the different orders of the faculty. His motto has been, '*amicus Socrates, amicus Plato, sed magis amica veritas.*' He has not been the advocate of any party, of any order, of any corporation, but the advocate of the whole profession."

We have, indeed, been astonished that Dr. Ryan has been able to dedicate so much time to the laborious research which this volume displays, considering his other avocations as an editor, a lecturer, and a practitioner.

We will not maintain that the work is without imperfection—for what work could fairly claim such distinction? Nor do we entirely agree with Dr. Ryan in all his ethical precepts. The author, indeed, from want of attention to inverted commas, has sometimes enunciated opinions which do not breathe the liberal spirit with which he himself is inspired. The following passage, though not marked as a quotation, is, we are convinced, not the sentiment of the author.

"The presence of an apothecary at a consultation can be of no use whatever to the patient, and is very often injurious. Physicians, in his presence, cannot deliberate as freely as they would do, were they by themselves. They feel that they are under the *surveillance* of a person who may have a partiality towards one physician, and a prejudice against another, and who may pass what comment he pleases on their opinions and practice. The effect of this is, to create a degree of caution and reserve on their part, altogether inconsistent with the object of a consultation; and which

often renders it little else than a mere matter of form.”*

If the apothecary of our own time was the mere compounder of drugs, as he was thirty or forty years ago, and uninitiated in the principles and practice of therapeutics, there might be some ground for the foregoing observation. But the general practitioner (for there is now no such thing as mere apothecary in this country) is well educated, and imbued with great practical knowledge, from daily observation of diseases in all their varied forms—he is, therefore, a very desirable, and often an indispensable personage in the consultation, where the good of the patient, rather than the academic pride of the physician, is to be taken into account. Our intercourse with this class is probably as great as that of the generality of our contemporaries, and we can conscientiously declare that we would be very sorry, in any important case, to be deprived of the assistance and advantage of the attendant practitioner.

We have made these observations, and we have quoted the above passage to shew that we do not praise Dr. Ryan's work as a mere compliment, and without having perused it. But, we may add, the errors and blemishes are very few indeed, and scarcely sully the performance, which, as a whole, does great credit to the author's heart, as well as his head. After this declaration, it is hardly necessary to say, that we recommend the work as being, all that it professes to be, a *MANUAL OF MEDICAL JURISPRUDENCE*.

P.S. We shall revert to particular parts of the work in our next Number.

* We believe that this passage is attributable to Dr. Grattan, of Dublin; and it is a pity that Dr. Ryan did not consign the property to its real owner, since it is not worthy of being either borrowed or stolen.

LV.

DR. MILLIGAN'S SECOND EDITION OF CELSUS.

THIS second edition of Celsus has had the advantage of being reprinted, with the greatest attention to accuracy, by Dr. Milligan, from his former edition, which was generally pronounced immaculate by some of the most classical of our medical reviewers. But the editor has not confined his attention to the sole object of giving Celsus again to the world, with a high degree of literal precision; he has made many additions and improvements, several of which must greatly enhance the value of the work to the reader; and we are happy to state that he has been enabled to effect so much without any addition to the price of the work. Thus there is a Delphini index verborum, in quadruple columns of nearly ten densely printed sheets, by which this distinguished classic is now put upon the same footing with other ancient authors so published; and must prove a valuable auxiliary to every scholar who would study the elegant and highly idiomatic language of Celsus; nor less so to the man of the profession who would acquire the power of delivering his ideas to the world in the dialect of the Augustan age. There is a synopsis of the different articles and instruments employed by Celsus, illustrated with their English synonyms, an improvement which renders the work intelligible to readers not familiar with natural history or botany. The authorities, documents, and principles upon which the relations of ancient measures to each other and to modern measures are established, have been given complete in the present edition, and the old index Capitum, which was allowed by all to be useless, has been instructively converted into an analytical table of contents, which affords to a glance of the eye a distinct view of the whole plan and connexion of the work of Celsus.

To the catalogue of authors mentioned by Celsus, has been added the periods at which they flourished, the books in which such dates are to be found, being in very

few hands. Nothing useful has been entrenched in order to make way for these improvements; and we think, therefore, that the editor may rationally anticipate to his present labours a continuance of that partiality which the public has evinced towards his first edition.

LVI.

LEE'S CELSUS TRANSLATED, &C.

JUST as we had finished the foregoing article we received the first volume of an edition of Celsus by Alexander Lee, A. M. Surgeon, which is on a very different plan from that of Dr. Milligan. The text which Mr. Lee has followed is that of Targa—some tables and notes are taken from “that splendid and very correct edition by Dr. Milligan”—while he acknowledges his obligations to

various ancient and modern authors, in the construction of his work. His principal object was to present the reader “with the most approved text of the various editors from Cæsius in the year 1528, to that of Targa in 1769,” who left little for other authors to do in that respect. The *ORDO VERBORUM*, which is of great assistance to the student, appears to be judiciously constructed; while the translation is rendered as literal as the idioms of the two languages will admit. We shall now offer a specimen of the performance, selected at random, which will convey a very fair idea of the manner in which the work is got up. The chapter which we have accidentally stumbled upon seems to be as appropriate in these days of pestilential dread, as any in the whole book. Neither will the suggestions and precautions of the old Roman be unworthy the attention of the modern Briton.

CAP. X.

ORDO.

OBSERVATIO IN PESTILENTIA.

“Est etiam observatio necessaria, qua quis in pestilentia utatur adhuc integer, cum tamen securis esse non possit. Tum igitur oportet peregrinari, navigare: ubi id non licet, gestari, ambulare sub divo, ante æstum, leniter; eodemque modo undi: et ut supra comprehensum est, vitare fatigationem, cruditatem, frigus, calorem, libidinem: multoque magis se continere, si qua gravitas in corpore est. Tum neque mane surgendum, neque pedibus nudis ambulandum est, minime post cibum, aut balneum: neque jejuno, neque cœnato vomendum est: neque movenda alvus; atque etiam, si per se mota est, comprimenda est: abstinendum potius, si plenius corpus est. Itemque vitandum balneum, sudor, meridianus somnus, utique si cibis quoque antecessit; qui tamen semel die tum commodius assumitur; insuper etiam modicus, ne cruditatem, moveat. Alternis diebus invicem, modo aqua, modo vinum bibendum est. Quibus servatis, ex reliqua victus consuetudine quam minimum mutari debet. Cum vero hæc in omni

“Observatio est etiam necessaria, qua quis adhuc integer utatur in pestilentia, tamen cum non possit esse securus. Tum igitur oportet peregrinari, navigare: ubi id non licet, gestari, ambulare leniter sub divo, ante æstum: que eodem modo ungi: et ut est supra comprehensum, vitare fatigationem, cruditatem, frigus calorem, libidinem: que continere se multo magis, si est qua gravitas in corpore. Tum neque surgendum mane, neque est ambulandum nudis pedibus, que minime post cibum, aut balneum: neque est vomendum jejuno, neque cœnato; neque (est) alvus movenda; atque etiam, si est mota per se, est comprimenda: potius est abstinendum, (quam implere se,) si corpus est plenius. Que item vitandum balneum, sudor, meridianus somnus, utique quoque si cibis antecessit; tamen qui assumitur semel die commodius, tum etiam insuper modicus, ne moveat cruditatem. Modo aqua, modo vinum est bibendum alternis diebus invicem. Quibus servatis, victus debet mutari quam minimum ex reli-

pestilentia facienda sint, tum in ea maxime, quam Austri excitarint. Atque etiam pergrinantibus eadem necessaria sunt, ubi gravi tempore anni discesserunt ex suis sedibus, vel ubi in graves regiones venerunt. Ac si cetera res aliqua prohibebit, utique abstinere debet: atque ita a vino ad aquam, ab hac ad vinum, eo, qui supra positus est, modo, transitus ei esse."

qua consuetudine. Vero cum hæc sint facienda in omni pestilentia, tum maxime in ea, quam Austri excitarint. Atque etiam eadem sunt necessaria pergrinantibus, ubi discesserunt ex suis sedibus gravi tempore anni, vel ubi venerunt in graves regiones. Ac si aliqua res prohibebit cetera, utique debet abstinere: atque ita ei transitus esse a vino ad aquam, ab hac ad vinum, eo modo, qui est positus supra."

TRANSLATION.

CHAP. X. PESTILENTIAL DISEASES.

"There are some things to be observed in a pestilential season, even by a man who is as yet in good health, but yet cannot be secure. At that time it is proper to travel, and to sail: when that is not attainable, to use gestation, gentle walking in the open air before the heat of the day, and unction with the same moderation, and as it has been directed above, to avoid fatigue, crudity, cold, heat, and venery, and confine himself to a strict regimen. If he feel any heaviness about the body, then he is neither to rise in the morning, nor walk barefooted at any time, particularly after meals or the bath: nor to vomit either with an empty stomach, or after supper: nor are the bowels to be relaxed, and if they become loose of themselves, they must be restrained. Abstinence must be observed, if the body be plethoric. Also the bath must be avoided, sweating, the meridian nap, particularly if food have preceded it, at which time food should be taken rather once in the day, and even that sparingly, lest it may cause indigestion: one day water, next day wine is to be drunk, and so on every alternate day. These regulations being observed, there ought to be little or no deviation from the usual diet. But as these rules are applicable in all pestilential times, they must be more strictly adhered to in those caused by the south winds. The same precautions are necessary for travellers who are about to leave their residences in the sickly season of the year, or when they have arrived in some unhealthy region. But if any circumstance shall prohibit a compliance with all these things, it will be strictly necessary for a person to live abstemiously; and that the transition may be thus:—from wine to water—from this to wine, in that manner which has been directed above."

Only half the work is yet published; and when completed it will be one of the most acceptable presents which can be presented to the student, and to a large proportion of medical practitioners who may wish to peruse the most celebrated medical author of antiquity, with the assistance of a good translation, a correct text, and a "LUCIDUS ORDO."

LVII.

CAJEPUT OIL IN CHOLERA.

This stimulating oil is beginning to attract attention, and to throw in its claim for noto-

riety. How far and how long it may be able to supersede or eclipse the long-established reputation of opium, brandy, and calomel in the painful spasms, and disordered secretions of our autumnal visitations of cholera, we will not pretend to say.

Sir Matthew Tierney and Mr. Bushell, have published some cases where the cajeput oil was considered to be very advantageous; but whoever has seen much of cholera must be well aware of the sudden relief which is often afforded by hot and aromatic substances of every kind—by spices and by brandy.

I. The following is the case published by Sir M. Tierney, in our contemporary, the Medical Gazette.

"A lady, æt. 23, felt indisposed at half-past nine, P.M. on Wednesday, the 10th instant: she had been in good health throughout the day, and dined as usual, at eight o'clock. At a little before ten vomited the contents of the stomach, reported to be merely the food taken at dinner: the bowels were moved shortly after. At half-past ten the vomiting and purging again took place, and she felt "very uncomfortable." Continued occasionally purged and sick at the stomach till a little before one, when she fainted, and remained insensible for about ten minutes: on recovering, she was seized with violent spasms in the lower extremities, more particularly in the feet, the toes being remarkably affected. The nausea and vomiting again distressing.

On my visiting this lady (for the first time since the invasion of the symptoms) at a quarter before two, A.M. on Thursday, the 11th, I found her in a profuse perspiration, with a death-like coldness of the extremities; the pulse at the wrist scarcely perceptible; insatiable thirst; countenance expressive of great anxiety, with a remarkable shrinking of the features; and extreme restlessness: the mind perfectly clear. She said, 'I believe that I have got the cholera: I took twenty-five drops of the cajeput oil about half an hour ago, and in a few minutes after, fifty drops more: it has done me good; pray, let me have another dose.' I assented, and fearing that what she had already taken might not have been genuine, I sent for some which I had received from a friend lately arrived from India: in the meantime, she took three tea-spoonfuls of brandy, in a little water, which was repeated in five minutes. The body and limbs having been well rubbed with hot, dry flannels, were wrapped up in the same: this was attended with considerable difficulty, from the great restlessness and jactitation.

At two o'clock, A.M. I gave forty drops of the oil, in half a wine-glass of warm water: this at once quieted the stomach, and in half an hour the spasms were somewhat relieved: the pulse became more perceptible, and she said that she felt better; but the thirst continued unabated, and she

called for iced water, of which she was permitted to take half a wine-glass repeatedly, with the addition of a small quantity of brandy, and a little sugar.

At half-past three the extremities became quite warm, indeed they were rather above the natural temperature; but the restlessness was at this time excessive, and a stool was passed, consisting of about six ounces of fluid resembling thick rice-water. Plain water, soda water, lemon-peel water, iced, with a little brandy, occasionally given. The feeling of weakness excessive: there was a disposition to sleep, but this was interrupted by extreme thirst: the stomach and bowels now quiet. At five o'clock she anxiously requested a saline effervescing draught, which was given, but immediately rejected by the stomach: the pulse became more languid; another dejection, similar to the last; hiccup; the spasms increased in violence, and she complained of excruciating pains across the loins. Took ten drops of laudanum, with ten grains of Epsom salts, in a little peppermint water, but this was soon rejected, and not followed by any alleviation of the symptoms.

At six o'clock, A.M. I had the pleasure of having Dr. Holland associated with me. A blister was directed to be applied to the epigastric region; a draught ordered, containing a small quantity of Epsom salts in a little peppermint water, which was immediately rejected by the stomach; the small quantity of brandy in iced water, soda water, &c. directed to be given occasionally.

The thirst continuing unabated, the patient was permitted to have small bits of ice in her mouth, which gave great comfort. During all this time *no urine was passed*; throughout there was no pain in the stomach or bowels.

The extremities becoming again cold, and the pulse giving way, it was agreed, at eight o'clock, to give forty drops of the cajeput oil. Great relief followed the exhibition of this dose; within an hour, however, the violent spasms in the muscles of the legs and feet returned, but they lasted only for a short time; she then became composed, and soon after had a short refreshing sleep.

At twelve o'clock great improvement; and at two, P.M. (the stomach and bowels having remained quiet) she took two grains of calomel, with three of the compound extract of colocynth. At three o'clock the patient took a small breakfast-cup of mulagatawney soup; and had afterwards refreshing sleep for an hour and a half; at five took a wine-glass of sherry, and slept again for an hour; at seven took another cup of the soup, and afterwards slept till half-past eight, when a dark, scanty stool passed; and for the first time since the attack, some urine; at half-past nine another scanty motion, and soon after a greater quantity of urine, of a pale colour; at ten o'clock, P. M. she took four grains of the extract of colocynth, and she was removed to a sofa while her bed was being made; at half-past ten, after taking a little more soup, she fell asleep.

Friday, 12th, nine, A.M.—I found the patient asleep; her maid reported that she had passed a good night, and slept comfortably; urine passed freely; at noon met Dr. Holland; we found our patient free from complaint, having taken some of the soup for her breakfast. It is to be noted, that throughout this attack the tongue was clean and moist, although the thirst at times was intolerable. In the course of this day she was moved from her bed to a sofa; at nine in the evening, the bowels not having been moved, eight grains of the extract of colocynth were taken.

Saturday, 13th, morning.—Found that the patient had been disturbed by the pills during the night, and had had loose bilious motions.

Sent for at five, P.M. in consequence of her suffering occasional pain in the stomach and bowels, with vomiting. A draught, consisting of camphor, julep, and opiate confection, was ordered, but this was immediately rejected by the stomach. The pain and sickness continuing, thirty drops of the cajeput oil were administered, and soon after the pain and sickness subsided. The cajeput oil was always very grateful to the stomach. The lady has continued well. No other case of cholera has occurred in the family."

Considering the protracted state of indisposition in this case, we are very far from believing the cajeput oil was a better medicine than many others which we could mention. However, we do not wish to detract from the utility of the medicine, if it be possessed of any good qualities. It is a very old acquaintance of ours in the East, though seldom employed except externally.

II. Mr. Bushell, an intelligent practitioner, has published through the same channel, two cases treated by the same remedy. They are as follow:—

"August 20th, 1831.—Hannah —, aged 50, housemaid, is subject to dyspepsia, but has been well until between seven and eight this evening, when she was seized suddenly with considerable abdominal pain, diarrhoea, and vomiting. I was called to her about ten, and found the vomiting severe and incessant, of a clear transparent mucus. Bowels purged five times; motions dark, fluid, and offensive; pain of abdomen intense, with much tenderness, and the muscles apparently in a state of cramp, or spasm; extreme anxiety; cold clammy perspiration; pulse very weak, about eighty. I prescribed as follows:—

R. Olei Cajeputi guttas, xl.

Magnesiæ Subcarbonatis, ʒj.

Aquæ Pur. ʒiss. M. f. haustus stat. sum.

11 o'clock.—The relief from the medicine has been decided, to use my patient's words, 'to perfection.' The vomiting and pain in the bowels have subsided, and she complains only of being very weak and cold.

R. Ol. Cajeputi guttas, xl.

Magnesiæ Subcarb. ʒss.

Aquæ Puræ, ʒvj. M. f. mistura sumat 4tam partem 2dis horis.

August 21st.—This morning I find my patient free from complaint; she will continue the medicine at longer intervals. She has had an alvine evacuation, during the day, of a natural colour.

Sunday, Aug. 21st.—About 10 o'clock this evening I was sent for to Mrs. H. aged 35, about five months advanced in pregnancy. I found her complaining of excru-

ciating abdominal pain, with vomiting of clear transparent mucus, and frequent purging; her pulse very weak, 75. She had taken about two table-spoonsful of brandy about half an hour previous to my visit, but this was instantly rejected by the stomach. The tenderness on pressure over the abdomen was so exquisite, and accompanied by pregnancy, that, had it not been for the experience of last night, I certainly would have bled largely. I determined, however, on giving the ol. cajeputi, in the dose of forty-five drops, combined with twenty grains of magnesia, in water. I saw my patient again at eleven. The effect of the medicine has been very beneficial: the pain had much subsided, and the stomach and bowels were quiet. I have directed fifteen drops to be taken every two hours during the night.

August 22d.—This morning I find her full of spirits, having taken three doses of the medicine.

The cajeput oil may be most gratefully administered combined with magnesia, which has the property of diffusing or causing essential oils to dissolve in water, and which, in the opinion of Annesley, has a certain degree of power itself over the stomach, in cases of cholera. I am disposed to think that the cajeput has some influence over the symptoms of the present epidemic; but that it has more than many other volatile oils (more especially peppermint), remains, I think, with Dr. Macleod, in your number of the 13th of this month, to be proved. I remember reading in Johnson's *Medico-Chirurgical Review*, some years ago, accounts of its very great efficacy in the treatment of the Indian cholera; but, from want of an Index to that truly valuable periodical, I cannot place my hand on the number, but so far as I can charge my memory the doses were large—about one hundred drops. So much has been said, and from such high authority (Sir M. Tierney), on the powers of the cajeput over cholera, that the drug monopolizers are at work, and its price has fully doubled within the last fortnight.

THOMAS BUSHELL."

LVIII.

AUSTRALIAN SURGERY.

I. ON DISLOCATION OF THE HIP-JOINT. By Mr. BLAND, Surgeon, New South Wales.

MR. BLAND'S attention was drawn to the subject by a case of dislocation of the femur backwards and upwards, when he adopted the following instead of the usual procedure.

The patient being placed on a long low table, on his side, and otherwise in the position customary on these occasions—and the means of counter-extension being prepared in the usual manner; the operator, standing behind the patient, and placing his right thigh firmly between the thighs of the patient, close to the perineum (the dislocation being of the right side,) was enabled, by depressing the knee of the dislocated limb, to raise the head of the bone, by which means, aided by a moderate degree of extension, the reduction of the limb was effected with the greatest possible facility.

The prominent advantages which Mr. Bland attaches to the foregoing plan, are, that the hands of the surgeon are at perfect liberty—the one to be used, as required, in depressing the knee—the other, in ascertaining the exact position of the acetabulum, and directing the head of the femur into its place, while the surgeon, unfatigued and unembarrassed, can give his directions, and act with coolness and precision, ensuring the best chance of success.

The extension and counter-extension were made in *this* case (which was recent,) by means of mere manual assistance; and an individual was stationed to support the foot of the patient, so as to allow it freely and readily to follow the motions of the knee.

This procedure Mr. B. had followed in every case that occurred to him for some years, and one of the dislocations was of twelve days standing before the operation for reduction. In all these cases he was entirely successful. But at length he was called to a case where the head of the bone had been dislocated into the thyroid foramen

for eight days, and in which (from the remote situation where the accident happened) no attempt at reduction had been made. In this case, the above-mentioned mode of proceeding was tried, but failed, and Mr. Bland having also failed by the usual modes of reduction, was obliged to invent a machine for the purpose—a lithographic plan of which he has published in a contemporary journal.

II. LIGATURE OF THE SUBCLAVIAN ARTERY, IN SYDNEY, NEW SOUTH WALES. By Mr. BLAND.

It is not a little honourable to Australian surgery to be able to boast of a successful cure of axillary aneurism by so formidable an operation as ligature of the subclavian artery. We can do little more than merely allude to the case in this place. The patient was 63 years of age, a pauper in the Sydney asylum, who first perceived the aneurismal tumour a few months previous to the operation. It was shewn to Mr. Bland and Dr. Fattorini, in December, 1830, when it presented the section of an oblate spheroid, the size of a large orange, extending from the clavicle into the right axilla, attended with considerable and unremitting pain, almost entirely preventing sleep. The man attributed the complaint to a hurt received some time previously. On careful examination, no disease of the heart, or of any other vessel could be detected; and the case having been considered in consultation with Mr. Forster, Dr. Fattorini, Dr. Rutherford, and others, it was determined to tie the subclavian artery, which was done in presence of the above gentlemen. The steps of the operation are not detailed in the paper which we have seen, but only the result. The operation was performed on the 17th December, 1830, and the last ligature came away on the 29th January of the present year, leaving the wound entirely healed. Very active depletion was used after the operation. Mr. Bland has omitted to state the appearances of the aneurismal tumour at the time the account closed, which was on the 20th February. We con-

gratulate the Australian profession on this bold and extremely difficult operation being performed at all—but especially as it terminated with success, as far as the operation itself was concerned.

LXI.

ROYAL NAVAL SCHOOL.

OUR naval readers, and they are not very few, will be gratified to learn that a ROYAL NAVAL SCHOOL, for the education of the sons of naval and marine officers, has been established under the patronage of His Majesty, and a large list of distinguished officers in the naval service. It is not a little remarkable that the celebrated and Reverend Dr. A. Bell, Prebendary of Westminster, has given to this institution the magnificent donation of £20,000 in the three per cents, on the condition that the Madras system of education be adopted in the school—as exemplified in the Royal Military Asylum at Chelsea!!! It is hardly necessary to state that this princely offer was instantly accepted, and that the institution is in rapid progress of organization. The object is to form a school for educating the sons of naval and marine officers (not below ward-room rank) at the lowest expense, and including board. All officers of and above ward-room rank, are eligible to become members of this institution, “on annually, paying, *in advance*, one day’s half-pay.” All such members are to have a vote in the general meetings, with the power of nominating their children, as they attain the age of seven years, as candidates for admission into the school. These candidates are to be admitted in strict rotation, as vacancies occur, or as the establishment is enlarged. All patriotic persons, by subscribing one guinea annually, are admitted as members, and have one vote in the general meetings. Donors of £100 have the absolute nomination of one boy (the son of an officer and member) to gratuitous board and education, for a period not exceeding five years, between the age of seven and fourteen years.

A further admission of gratuitous scholars is also contemplated, according as the funds may, on trial, be found to supply the means. Such gratuitous scholarships are to be reserved for the assistance either of orphans, or of members with large families; so that from the fund thus provided for gratuitous education, either the whole or part of the required board may be remitted, as particular cases may seem to require. It is proposed that the above gratuitous scholarships be entitled "THE DICKSON AND BELL SCHOLARSHIPS," in acknowledgment of the merits of the originator of this scheme, and its bountiful benefactor.

We cannot but heartily wish this institution every success. The object is not only exceedingly good in itself, but it is peculiarly desirable in a period of peace, when a very large number of naval and marine officers are scarcely able to supply themselves and families with food, much less to bestow a liberal education on their sons.

LX.

AN ACCOUNT OF A CONTAGIOUS FEVER WHICH OCCURRED AMONGST THE DANISH AND AMERICAN PRISONERS OF WAR, AT CHATHAM, IN THE YEARS 1813, 1814. By Sir WILLIAM BURNETT, Knt. M. D., K. C. H. Medical Commissioner of the Navy, &c. Svo. pp. 47. Burgess & Hill, 1831.

THE campaigns of Napoleon crowded the hospitals of the Continent with contagious fever, in the same way as those of the Russian Autocrat are now spreading pestilence and death through devoted Poland. Our insular situation and our wooden walls have secured us from these terrible attendants on hostile armies; but our naval ports have sometimes exhibited severe specimens of those afflictions, which are almost inseparable from war. Portsmouth, after Sir John Moore's retreat, was the scene of a desperate fever—and the prisoners of war, in all the different depôts, were occasionally scourged by fevers, which, however, usually

sprang up among themselves from local causes, acquiring a contagious character in their course, and thereby aggravating their fatality. Of this kind was a fever which prevailed amongst the Danish and American prisoners of war on board several of the prison-ships in the Medway, in the Winter of 1813-14—and which Sir W. Burnett has now put on record, chiefly to shew the local origin and the contagious diffusion of the disease. The little work is also valuable in a prophylactic and therapeutic point of view, as the result of accurate observation and authentic histories.

Early in the month of Feb. 1814, a fever was reported to exist in the Bahama prison-ship at Chatham; and Dr. Dickson, physician of the fleet, was directed to visit her. The number of cases then amounted to fifty among the prisoners, while some of the crew were also affected. It appears that in the preceding month (January) three or four hundred Danish prisoners had been sent from the Bahama to the *Defiance*, a temporary prison-ship—and in this latter ship a severe fever soon afterwards broke out. The disease advanced and increased in both vessels, and several deaths occurred. In the course of Feb. the fever appeared also in the *Kron Prince*, and *Fyen* prison-ships; but was of a milder character than in the two former vessels. On the 4th March Sir William was appointed to succeed Dr. Dickson, and found that, up to that time, 157 Danes and Americans had been sent to the hospital-ship, of whom 24 had died—and 21 afterwards. The hospital-ship was then extremely crowded, and many of the patients presented petechiæ, vibices, and gangrened legs. Mr. Thomson, the surgeon of the Bahama, had died of the fever, while his successor, Mr. Johnson, was ill of the same disease. To add to their embarrassment, the small-pox had broke out in the *Kron Prince*. It is remarkable, that the French prisoners in the surrounding prison-ships remained free from fever. The severity of the weather prevented the free ventilation of the infected ships; but every exertion was used to prevent the spread of the fever,

by quickly separating the sick from those who were well. Towards the conclusion of March, the weather improved, and the fever gradually ceased. During the progress of the disease almost every medical officer, except the Doctor himself, suffered an attack of the fever. 518 men were affected after the 6th of March, of whom 61 died—or about 1 in 8½. The disease made its appearance “with a surprising variety of symptoms, scarcely any two being attacked alike.” The disease is minutely delineated by Sir William, but the symptomatology we must pass over. The morbid appearances, *post-mortem*, were as follow:—

BRAIN.

“Vessels of the dura mater very turgid—meninges in different parts thickened and inflamed—coagulable lymph effused on the surface of the brain; and the substance of the brain itself much softened, in some cases accompanied with an effusion of blood.

THORAX.

Lungs adhered to the pleura, and were often covered with pus. In some they were indurated; in others there were tubercles, or vomicæ, purulent effusion into the cavity of the thorax, and occasionally effusion of blood. The fluid in the pericardium was often increased in quantity.

ABDOMEN.

Concave surface of the liver, livid; and in one case, wherein the patient died suddenly while sitting by the fire in a state of apparent convalescence, there was encysted dropsy of that organ. The gall-bladder was much distended with inspissated bile, which could with difficulty be pressed through the duct into the duodenum.

The omentum and ileum were inflamed: the colon was found sometimes distended, at other times contracted and filled with fæces. The external parts of this intestine were in some instances of a greenish colour, with anasarcaous effusion on its surface.”

It can hardly be denied that the greater and more essential features of the foregoing

phenomena must have resulted from inflammatory action, whether of the acute or sub-acute kind—and the antiphlogistic, when not obviously contra-indicated, was employed. “Would to God,” says the author, “I could say that it was very successful. It was, however, the most successful of any we used.” Some of the men when received into the hospital-ship, and who were covered with petechiæ, were (if the expression be allowed) “snatched from death by a moderate use of the lancet and purgatives, succeeded, in the decline of the disease, by a guarded employment of stimuli, such as wine and bottled porter.” Mercury, as a sialogogue, was seldom useful—and emetics were rather injurious than beneficial. Much erysipelas prevailed, and a cold spirituous lotion was found to act almost as a specific.

ETIOLOGY.

The Bahama was constituted a prison-ship in 1811; but it was only in 1814 that fever made any prominent appearance—and “increased alarmingly.” It is quite evident that the Defiance, Kron Prince, and Eyen had had that kind of communication with the Bahama which led to the existence of the fever in those vessels. But how did the fever originate in the Bahama—the *fontes et origo* of the evil? The weather, in the early part of the year 1814, was very inclement, in consequence of which the prisoners took “every method in their power to exclude the external air. They had, moreover, a great quantity of dirty clothes; and were exceedingly indolent—so that it was with the greatest difficulty that any thing approaching to a clean or well ventilated state of the prison-decks could be obtained.” When these circumstances are taken into consideration, in conjunction with the depressed state of the *morale* among these people, “there seems just reason to conclude, that the fever in question originated among themselves from animal effluvia—became concentrated from the total want of ventilation—and that it afterwards assumed an infectious form, and propagated itself whenever there

was sufficient communication with those infected." We have no doubt of it. It is the view which we have taken, since we were capable of forming a judgment from observation and reading. Sir William illustrates and confirms this view by instances collected from the journals of our naval medical officers in different quarters of the world, and which must carry conviction to every unprejudiced mind.

We have only been able to give a very brief analysis of this little volume, which we recommend to the perusal of all those who are sceptical as to the supervention of a contagious character on a fever originating in local causes.

LXI.

DR. RYAN AND HIS PUPILS.

WE have received the report of a meeting of nearly one hundred medical students of the late medical theatre, Brewer Street, held at the above place, on the 30th August, when an address to Dr. Ryan was prepared and signed by 96 students. We regret that neither our plan nor our limits will permit us to give this address and the answer to it, together with the subscribed names:—but as the body of the address is brief, we shall make room for its insertion in this place.

"Sir—It is with great satisfaction and pleasure that we embrace the opportunity presented by the termination of another medical course, to acknowledge the kindness with which you uniformly treated us, as well as the unremitting anxiety you constantly evinced for our professional and general welfare, during the time we had the honour of attending your valuable lectures on medicine, obstetrics, and medical jurisprudence.

By offering you our thanks in this manner, we do not attempt to increase the publicity of your name, already well known as a lecturer, and by works, which are allowed to be unrivalled for accuracy of information and sound opinions, but intend it as a testi-

monial of our esteem as well as our gratitude, which we consider justly due to your abilities and merit." (Signed, &c.)

Dr. Ryan returned a long and eloquent answer, in which the students are highly praised for their assiduity and attention to the instruction of their teacher—while they are complimented on the progress which they have made in the sciences taught by Dr. Ryan.

LXII.

THE DEAD LION.

AN insignificant correspondent of a contemporary journal for last month, has accused us, while adverting to the excentricities of the late Mr. Abernethy, of giving a "kick to the dead lion." If we were guilty of this fault, we shall take good care not to commit a much greater one—that of giving a kick to a living ass—by way of helping him to a little notoriety while braying in return. We are not very prone to censure either the living or the dead; and it would be difficult to assign any plausible cause for our *fear* of Mr. Abernethy in Bedford Row—or our *malice* towards his ashes in the lone church-yard. Those who are acquainted with our writings, know that we freely criticised some of his doctrines and practices when he was well able to reply to our criticisms. Mr. A. never injured or offended us—and if he had done so, we should not have remembered it for 24 hours, much less carried our resentment beyond the grave. But the charge is so puerile—and the object of it is so obvious, that we shall not deign to enter into any serious refutation. Let any of our readers revert to the article, and ask himself if there be any thing severe or unjust in our observations. We surmised that Mr. Abernethy's eccentric coarseness was at first *assumed*, and that afterwards it was continued from *habit*. This is the most charitable interpretation. If such coarseness (many have called it by a worse name) was *not assumed*, the actor must have been a madman or a monster. *Utrum horum*

mavis accipe? We are charged with the crime of affirming that the routine practice of applying the same remedies to all diseases must have proved injurious to health or even to life in many instances. This we re-assert. More than two years ago we published a striking instance of a life sacrificed by the want of all attention on the part of Mr. A. to the investigation of a disease. A most dangerous disease was going on in the head, and the surgeon would only look at the tongue, strictly prohibiting a word to be spoken by the patient or his wife. The man died at Bayswater of the overlooked disease, and was examined in company with another medical man. This case we published at the time, but Mr. A. never answered it. Yet we are now accused of giving a kick to the dead lion!

LXIII.

OBSERVATIONS ON MENTAL DERANGEMENT; BEING AN APPLICATION OF THE PRINCIPLES OF PHRENOLOGY TO THE ELUCIDATION OF THE CAUSES, SYMPTOMS, NATURE, AND TREATMENT OF INSANITY. By ANDREW COMBE, M. D. pp. xxxvi. 392, 12mo. Edinburgh and London, 1831.

DR. COMBE, in these "Observations," exhibits a general view of the brain and nervous system, and shews that, during life, every act of sensation however slight—and every act of perception, however feeble, every affection and moral emotion indeed, and every intellectual operation, are inseparably related to, and influenced by, a corresponding affection of the material organs with which the Creator has connected them. Hence, he refers the origin of mental derangement to disturbance of cerebral action, and explains how the intensity and proneness to activity of the mind's various faculties, are greatly modified by the relative size of their respective cerebral organs, in conformity with a universal law which pervades animate and inanimate nature, and is ap-

plicable to the brain and nervous system in common with all other parts. He maintains, that this condition of relative size, hitherto overlooked, is highly influential in *modifying*, often in *favouring*, the action of the numerous causes of disease by which we are constantly surrounded, and that, next to the hereditary tendency transmitted from parent to child, it is the most powerful of those conditions which predispose an individual to the invasion of insanity. Dr. C. next examines the various conditions required for the healthy action of the brain, and for the full development of the mental powers: in neglect of these conditions, and in contravention of others, he finds fruitful sources of nervous and mental disease: he shews that, in accordance with this observation, every circumstance to which mental derangement can be attributed, acts with a frequency and energy proportioned to the previous susceptibility of the patient, and to the directness with which it affects the nervous function: and, by analyzing the multifarious symptoms accompanying insanity, he discovers most of them in disturbed function of some nervous part, and points out the light in which they ought to be viewed as *signs* of the bodily state from which they originate. He considers next, the duration, periodicity, terminations, and symptomatic forms of the different cerebral affections on which insanity depends, and then explains the affinity existing between these affections and the numerous other disorders to which the nervous system, partially or generally, is liable. Taking a view of the necrotomical appearances connected with deranged mind, the Doctor shews—that the same analogy subsists between the brain and other organs, in its diseases, as holds between them in their healthy conditions;—that, if disorder of cerebral function is sometimes the only *sign* of morbid action, so likewise is disordered function occasionally the only *symptom* of disease in other parts;—that, when mental derangement prevails without leaving, after death, any appreciable change of structure in the brain, or when alterations of the cerebral structure are found where, during life, no sign indi-

cated their presence, so also the exact counterpart of this occurs with other organs in which violent and even fatal disorder takes place, without leaving any organic lesion to mark its previous existence;—and that, on the other hand, organic changes are detected by dissection, in parts where, during life, no corresponding disturbance of function indicated their development. Lastly, combining the results of his previous expositions, Dr. C. sketches out rules of treatment, medical and moral, in harmony with the existing state for which we are required to prescribe, and in harmony also with those leading principles in physiology, therapeutics, and pathology, by which we are accustomed to direct our curative efforts in all other bodily diseases, but which have hitherto been imperfectly applied in treating a class of affections second to none in inherent interest, or in importance to mankind. Dr. C.'s "Observations" abound with the results of deep practical reflection, and must be *studied*, in order to be rightly understood and appreciated: they are distinguished remarkably by the pure eloquence of Candour and the dignified persuasiveness of Philosophy;—altogether, the work is not surpassed by any one, of its kind, in medical science.

NOTE.—A comprehensive analytical review of Dr. C.'s book is in preparation by one of our correspondents, but the article has been unexpectedly delayed by his other engagements.

LXIV.

SPINAL IRRITATION.

MR. REES, of Landilo, has published the following short case in our cotemporary, the London Medical and Surgical Journal.

William Jones, æt. two years and a half, a healthy, strong, and well-grown boy, had the misfortune of losing all command over his right lower extremity, in June, 1830. In the evening he was observed to be cheerful, and walking about in his usual manner,

but when taken out of bed the following morning, he was discovered, to the no moderate grief of his parents, to be incapable of the slightest motion. In a few days after this happened, I was requested to attend him, and from my notes, I find that he was then very feverish, and that his stomach and bowels were in a very disordered state. I soon re-instated him in good general health, by the exhibition of purgative medicines; and as I then conceived the state of his limb to be, in a great degree, if not entirely, dependent on the disordered state of his digestive organs, I expected an improvement in the former, when the latter should be brought to execute their proper functions. But in this I was disappointed. The parents, not finding their boy's leg immediately beginning to improve, consulted (as is generally the case with the middle and lower class of this country) another surgeon, I therefore had no opportunity of trying other remedies, until I returned from the metropolis in June last, when I was entreated to attend the boy again. The following are the notes I then took:—Cannot move his right leg in the slightest degree; sensibility much diminished in this limb; its muscles are very flaccid; it is smaller than the left leg in circumference; its temperature is below par. The fulness of the glutæi muscles of the right side, much less than the glutæi of the left. He seems to experience no pain when his leg is moved about, or when extended, and the sole of the foot, strongly tapped with the hand. Bowels regular, and general health very good.

In examining the spine, I discovered some tenderness on pressure in the lower part of the lumbar region and upper part of the sacrum. I immediately applied a cupping-glass to the tender part of the back, and took away about an ounce and a half of blood. The following day he asked his mother to let him down, that he might walk; she indulged him in this, and to her great joy, he managed to limp along for some yards. Since then he has been again cupped, and counter-irritation has been kept up in the back for some weeks, by the ung.

antim. tart. The boy was brought to me yesterday, when I had the gratification of seeing him walk about pretty well, but he is rather lame. He has for the last three weeks been affected with hooping cough, of no ordinary severity, and his mother, on this account, has suspended the application of the ointment. When he improves a little, I intend pursuing further the same course of treatment.

LXV.

PULMONARY CAVERN OPENING ABOVE THE CLAVICLE.

[Hôpital St. Louis.]

It is not long since we laid before our readers some particulars of a case, where a pulmonary cavern communicated with the external air through an opening between two ribs, and through which aperture the patient (Mr. Macklin) expectorated (by coughing and breathing) large quantities of purulent and fetid matters for many weeks before his death.

The following case bears some analogy to the one we put on record.

Francis Derouin, aged 18 years, entered the St. Louis on the 24th Jan. 1831. He stated that he had often laboured under catarrhal affections in Winter time. The present complaint had commenced, eighteen months previously, with pain in his back and under the shoulder-blade of the side affected. In the course of five or six months a tumour appeared on the left side of the neck, for which the patient entered the HÔTEL DIEU in September 1830, where he remained three months under M. Breschet, who punctured the tumour and evacuated its purulent contents. He remained in the HÔTEL DIEU about three months, and then repaired to the Hôpital St. Louis. On examination there, they found a fistulous opening above the left clavicle, near the insertion of the sterno-cleido muscle. During the examination the patient coughed two or three times, and, in each of these efforts, threw out a quantity of purulent matter, mixed

with some bubbles of air. On further examination, the patient presented all the essential characters of phthisis. A probe passed readily to a depth of four inches, without causing any pain. After some time the pus became very fetid, and the patient's breath partook of the same. The force of the air passing out of the cavern also increased, so that, by the 20th May, he could blow out a candle through the fistula. The inspiration was always *per vias naturales*. He died exhausted on the 6th of June.

On dissection, several of the ribs were found to be carious, and an enormous cavity was discovered, filled with pus, and lined with a secreting membrane, and communicating with some bronchial tubes. Tubercles were also found of different sizes in both lungs.—*Rev. Med.*

LXVI.

ULCERATION AND PERFORATION OF THE HEART.

[Hôtel Dieu.]

CASE. Margaret F.—, aged 51 years, was received into the HÔTEL DIEU on the 8th March 1831, complaining of obscure symptoms of indigestion, and being unable to give any satisfactory account of her feelings or ailments. Her tongue was pale and slightly furred—pulse regular, and a little accelerated—bowels torpid, and without tenderness of abdomen on pressure. Leeches to the epigastrium—ptisans—soup for aliment. The patient remained in nearly the same state during the ten days which she passed in the hospital, and the want of prominence or intensity in the symptoms caused her case to be little attended to. On the 19th of the same month, however, she was found dead in her bed, having made no noise or struggle to awake those who slept next to her.

Dissection. The pericardium was found adherent to the heart in several places, and in the interspaces was much coagulated blood. The pericardium and the blood being removed, a deep ulceration was seen in the posterior and middle part of the left

ventricle, completely perforating the parietes. The internal orifice was ascertained to be ulcerated and ragged like the exterior orifice. The muscular substance of the heart did not appear to be unnaturally soft, except for a small space around the perforation. There was no other appreciable lesion in the organ—*Lancette Francaise*.

LXVII.

PERIOSTITIS.

[MEATH HOSPITAL.]

WILLIAM DARCY, ætat. 32, a labourer, admitted April 5th, 1831. Complains of very severe pain in the right side of the head, extending down the side of the face and neck as far as two abscesses; one situated at the upper part of the sternum, not yet open, and of a dull red colour; the other at the internal third of the left clavicle, open, and in which a probe can be passed more than an inch and a half, discovering the bone to be carious. From the left side of this abscess a hard tender swelling extends for more than two inches along the clavicle, and a very short way up the neck.

All the right side of the head, face, and neck, is very tender, and in some places red and very slightly swollen, with a sensation of numbness. The pain in the head is constant, worse at night, and aggravated by cold or wet weather, or exposure to wind. He has no other pain. His history is as follows:—He had several attacks of the venereal disease, for which he was salivated two or three times. The last attack was six years ago. Since that time his health continued pretty good, without pain or eruption, till a year since, when he first experienced a severe pain about the middle of the sternum, with some degree of swelling, worse at night, and increased by pressure; and, a week or two after its first appearance, accompanied by a swelling every night in the throat and face, which went off in the morning. After several months he was relieved from this affection, in this hospital.

At the time of the snow, about nine weeks ago, he caught cold, and pain was experienced at the left clavicle, and side of the neck; the pain leaving the left side, attacked the parts at present engaged with great severity; since which time he has been deprived of rest at night, and lost his strength and health. The abscess on the upper part of sternum appeared a fortnight since, preceded by pain in the spot. appetite good; tongue loaded, red at tip; bowels confined; pulse slow.

Hir. xii. capitis parti sinistræ; et habeat decoct. sarsap. ℥i.; Acid nit. ʒi.

6th.—Little relief of the pain. Two needles were inserted about an inch deep into the temporal muscle, with great mitigation of the pain, though not its entire removal. Rep. decoct.

7th. He slept two hours yesterday after the insertion of the needles, and his head-ach for the rest of the day was not so severe; to-day, however, it is nearly as bad as ever. The abscess in the sternum was opened, and the opening in the one on the left clavicle enlarged. Rep. decoct. et applicetur vesicat. capiti.

The leeches and blisters were repeated, with the daily use of the decoct. sarsap. and occasional purgatives. By these means the pains became gradually less, and at present he has no pain any where, but only some slight degree of swelling, and a sensation of numbness in the right side of the face (April 23d.) The abscesses, though not yet healed, are greatly improved in appearance, the centre granulating, and the parts are less red and swollen, and no longer tender.

REMARKS.—The result of this case is very satisfactory, as, from the obstinacy and severity of the pain, little good was at first expected to be produced. At present the man is at least in a state of comparative ease from a very distressing affection. Some of these cases of periostitis in bad constitutions, and where the system has been shattered by repeated courses of mercury, assume a very severe form; the periosteum not only being painful and tender to the touch,

but a semi-cartilaginous deposition taking place between the bone and periosteum, ending in suppuration and disease of the bone, as in this case. An abscess, however, frequently forms, without being preceded by the semi-cartilaginous deposition, from inflammation of the periosteum; such was the case in Graydon; the man with jaundice, under Dr. Graves. The semi-cartilaginous deposition appears, also when occurring in good constitutions, to have a disposition not to run into suppuration, coming and going for a number of years with little change in size or situation. The pain is always most severe when this disposition exists, and is often of an intermittent character, being worse at night. So great was the agony in one woman with a swelling from this cause on the lower part of the tibia, that, greater part of the night was passed in pacing up and down the ward. In her it was of many years' standing, and had been often treated. When abscesses form in broken constitutions, such as this man's, they are of a dull purplish red, sluggish, and from the diseased bone, very difficult of cure. The best way appears to be, to open them freely, dress from the bottom with red precipitate and lint, and on the appearance of granulations to touch with the sol. argent. nit. and apply a strap. The first favourable impression on the pain was by acupuncture.—*Med. Gazette.*

LXVIII.

CASE OF CYST COMMUNICATING WITH A STOMACH AFFECTED WITH LATENT CANCER. By M. RIBES.

A MAN, aged 61 years, entered the infirmary on the 7th of August, 1829, complaining of pain in the epigastrium. His pulse was small, the tongue natural, the countenance pale. There was some œdema of the lower extremities. He had very little appetite, and the digestion was slow and painful. He had neither vomiting nor nausea—went regularly to stool, and the æsthesiometer shewed no disease of the lungs or heart. He was put upon soup and pisans. On the

10th of August the patient felt in the line of the transverse arch of the colon some sharp pains, and his bowels were confined. Some aperient pills cleared the bowels. On the 13th he was again costive, and complaining of severe pains in the colon. He had a purgative lavement. 17th. The epigastric region was distended and sonorous. The stomach seemed to project, as it were, through the abdominal parietes. The lower part of the abdomen, from the umbilicus to the pubis, was soft and supple. A sulcus seemed to divide the abdomen transversely into two portions. The pain was always referred to the stomach and to the transverse arch of the colon. The left side of the chest appeared more dilated than the other, and the respiration was not now so clear on that side. The pulsations of the heart were obscure—the pulse slow—there was dyspnœa—and the appetite was almost annihilated.

Hitherto the complaint was considered to be chronic gastritis; but now the doctors became much puzzled, and they began to suspect that the patient laboured under tympanitis of the stomach complicated with pneumo-thorax of the left side. This uncertainty determined them to prescribe only for symptoms. Leeches were applied to the abdomen repeatedly, and six grains of calomel were given in six doses, with two hours' interval. The patient was seized with a colliquative diarrhœa, and died on 6th of September.

Dissection.—On opening the abdomen, a membranous sac was observed lying transversely in the epigastric region. It was at first mistaken for the stomach; but they soon found it was a cyst or pouch completely concealing that organ, to which, and to several other parts it was adherent. When opened, a gas was disengaged, and some seropurulent liquid was found, holding in suspension some debris of false membranes, with which the whole of this bag was lined. There was a small hole communicating with the stomach. In the mucous membrane of the stomach was found a cancerous tumour partially ulcerated.—*REVUE MEDICALE.*

LXIX.

OBLITERATION OF THE INFERIOR CAVA, ILIACS, CRURAL, AND OTHER VEINS. By M. RETNAULD, M. D.

[Hôtel Dieu.]

Case. THE patient was 40 years of age, and had had a fracture of the fibula eight months prior to his entering the hospital. One month before his admission he had experienced a fall, and contused the right side of the chest, some days after which he complained of pain in the inner and lower part of the right thigh, extending up to the groin, with swelling of the whole limb. There was nothing of the kind in the other member, except simply a swelling, which increased rapidly. On the 9th May (the day after coming into hospital) there was œdema of both legs; but much greater in the left than in the right. There was neither redness, nor hardness—and there was now but little pain. For two days past there was immobility (not paralysis) of the left limb. Near the groin of this side, there were three red lines or bands. The veins of both flanks were very much distended. Some œdema in the lower part of the abdomen on the left side. The pulse was 100, and the beating of the heart limited to the usual space. Very little thirst—*anorexia*. Venesection. The blood was buffed. 10th. A rigor, followed by heat and perspiration. This recurred on the 11th, after another bleeding. 12th. The abdominal veins are still more distended, and it was observed that the current of the circulation in them was reversed. After this the fever subsided—the pain was felt in the left hypochondrium and in the left side of the chest. During the three succeeding months the œdema of the lower extremities diminished considerably in the right side; but not so much in the left. By the middle of July, however, it had subsided in both extremities. The epigastric vessels of the right side became more distended than those of the *left*—but ultimately they both diminished. Cough which had existed for some time ceased, as did the pain of the side. All feverishness disappeared; but the

appetite never returned. The strength returned very slowly, and the patient could only go upon crutches. He became tired of the hospital, and removed home for a while; but ultimately returned to the hospital, and died there, with his legs moderately infiltrated.

On dissection, it was observed that the cava inferior diminished rapidly from the junction of the renal veins to its termination in the iliacs. Where the right iliac vein is given off, the cava was obstructed by a clot of fibrine which adhered to the parietes of the vessel. This clot extended up to the origin of the renal vessels; and also obstructed the iliac veins on both sides. Below this obstruction the vessels appeared like solid cords. The same was observed of the crural veins, the saphenæ, and the popliteal; as well as all the principal venous trunks of the lower extremities. In the abdomen, the only vessels that had enlarged were the spermatic veins. They were as large as the ovarian veins in the last month of pregnancy. Those of the right side entered the cava above where the obstruction existed. The left spermatics emptied themselves into the corresponding renal vein. The circumflexa iliî and one of the lumbar veins were larger than natural. On the parietes of the abdomen, also, there was a net-work of vessels exceedingly multiplied. The left renal vein, the splenic vein, and a branch of the vena portæ were obstructed in the same manner as the inferior cava. There were some fibrinous obstructions in the aorta; the lungs were cavernous—and there was effusion in the cavity of the right pleura.—*Journ. Hebdomadaire.*

LXX.

SPONTANEOUS TETANUS.

[Hôpital St. Antoine.]

Case. MARGARET P. aged 56, of good constitution, was suddenly seized, without any apparent cause, with acute pain in the lumbar region and all along the back; and shortly

afterwards with strong and general rigidity, being deprived of motion in the lower extremities. On the 5th day from the commencement of the attack, (viz. 8th April, 1831,) she entered the above-mentioned hospital, presenting the following symptoms—general contraction—fore-arms half bent—total inability to stand—jaws firmly closed—speaks with difficulty—intellects unaffected—face flushed—eyes watery—deglutition difficult—respiration rather laborious—pulse full and hard. Bled to 12 ozs.—diluent drink. 6th. The blood was buffed—other symptoms much the same. She was cupped on the loins—took opiates internally, and had opiate frictions externally employed. In the evening the breathing became very laborious, and all the symptoms were exasperated. She died the same evening in strong convulsions.

Dissection. The meninges of the brain were much injected, but there was nothing else remarkable in the brain, except that more red points than usual were observable on slicing it. There was a great quantity of serous fluid in the theca vertebralis, and the membranes enveloping the spinal marrow were of a rose colour, with sanguineous arborisations over the surface of the medulla itself. The anterior columns were evidently softened, and made no resistance to the scalpel. On close examination, in fact, it was found reduced to a jelly, especially in the lumbar region, and also in the cervical. The posterior columns were of the usual and healthy consistence. The origins of the nerves, anterior and posterior, presented nothing unusual—nor did the pneumogastric nerves, the semilunar ganglion, or the great sympathetic nerves.—*Rev. Med.*

LXXI.

M. DANCE ON A SPECIES OF INTERMITTING TETANUS.

WE doubt much the propriety of the term, tetanus, applied by M. Dance. However,

we shall briefly state the particulars of four cases which the author has detailed in the Archives Générales, for June last, by which the reader will be able to judge for himself.

Case 1. A female, 25 years of age, was admitted into the HÔTEL DIEU on the 5th October, 1824. She had enjoyed good health, and borne a child without any accident. A short time after her accouchement she was attacked with a kind of fit, characterized by numbness of several parts of the body, and followed by stiffness in the limbs, resembling painful cramps, which caused the patient to cry out; while the skin was hot, and covered with perspiration, the pulse hard and frequent. These attacks took place irregularly, and lasted three or four hours—latterly much longer. The patient, therefore, entered the HÔTEL DIEU, when it was observed that the fore-arm was semiflexed—the hands clenched—the lower limbs extended rigidly, requiring much force to bend them. The febrile symptoms induced the medical officers to have recourse to venesection, which rather augmented than diminished the symptoms, as indeed it had done before entering the hospital. On the 6th and 7th these attacks came on with great violence, and various means were used, including the hot bath, fomentations, frictions, &c. On the 8th an unusually severe paroxysm occurred, lasting all day, and not at all relieved by the bath, &c. In the evening, a slight catamenial discharge took place, and a dozen of leeches were applied to the thighs. After this no attack occurred till the 15th, when a mild one came on, and lasted for three days, accompanied by symptoms of hysteria. She then got quite well, and soon left the hospital.

The author concludes that the above could not be a case of anomalous hysteria—because febrile symptoms never occur in this complaint. “Dans l’hysterie, quelques variés que soient ses symptômes, il y a toujours absence de fièvre.” We say, no. Fever is not exempted from being pressed occasionally into the interminable catalogue of hysterical affections.

Case 2. A young steel-polisher had been subject for two years to attacks somewhat resembling those noticed in the female patient. He was admitted into the *HÔTEL DIEU* on the 21st of March, 1826, and at 10 o'clock the same evening he was assailed with stiffness of his limbs, which continued to increase till the fore-arms were rigidly flexed, the fingers clenched; and the lower extremities immovably extended. All these parts were very painful—his face was flushed—he was covered with perspiration—thirst urgent—pulse full, hard and frequent. He continued in this state throughout the night. 22d. The flushing of the face and the agitation increased. He desired to be bled, and his wish was complied with. No relief followed. In the evening, the same affection of the extremities returned, together with spastic rigidity of several muscles on the trunk and about the head. He was put into a warm bath, which increased rather than diminished the symptoms. From this time, however, the intensity of the phenomena gradually subsided, and the man left the hospital on the 18th of April. He had no relapse.

Case 3. A goat-keeper aged 46 years, had just emerged from an imprisonment of half a year's duration, when he was abruptly seized with stiffness and numbness of his limbs. In this state he continued for about a fortnight, with occasional exacerbations and mitigations of the complaint. On the 2d of Feb. 1826, he was attacked more violently than usual, with spastic contraction of the arms, and, at the same time, numbness of the lower extremities, lasting some hours, accompanied by re-action and perspiration. A general sense of soreness followed. The next day was passed without complaint. On the 4th he repaired to the *HÔTEL DIEU*, where he also spent a quiet day. In the middle of the following night, however, he was visited by the same train of symptoms, and when visited at seven o'clock next morning, he was found immovable as a statue, the fore-arms bent rigidly, the fingers clenched, the lower extremities extended and rigid, the muscles of

the thigh and calf of the leg hard and tense as though they were violently cramped. The muscles of the chest and neck were unaffected but the jaws were firmly closed. The pain was severe in the contracted muscles, the pulse was quick, and perspiration covered the body. The intellects were undisturbed. By the evening the paroxysm had subsided in a deluge of perspiration. No treatment was employed, and no attack returned, though the man was kept in the hospital for some months as an assistant.

We cannot view the last two cases as other than anomalous intermittents having nothing to do with tetanus. The 4th case does not differ materially from those we have narrated. The paroxysms were intermittent, and the cure was soon effected by quietude and regimen, in the hospital, without any medicine.

LXII.

ABSTINENCE. PROFESSOR HITCHCOCK.

In a little work, entitled "*DYSPEPSY FORESTALLED AND RESISTED*," published in America, by Professor Hitchcock, of Amherst College, we have a more amusing and instructive collection of peptic precepts, and sanatory regulations than in any other work which has fallen into our hands. We are only able, in this Number of the Journal, to announce the book, and make a single extract at random. On future occasions we shall glance at several subjects discussed by the American Professor.

ABSTINENCE.

"To those literary men who are determined in spite of arguments and physicians, to live as they have lived, in the indulgence of their appetites, there is one direction, which may serve to obviate the effects of their excesses. It is the observance of occasional seasons of abstinence from food. This is the sovereign remedy the brutes employ for nearly all their diseases; and,

indeed, in chronic complaints, it has a wonderful power over the human constitution. John Home, the author of *Douglas*, and otherwise distinguished in literature, bore without inconvenience the luxuries of London, by eating on the Sabbath nothing more than a single poached egg.* This course was not only wise, but Sunday was the best day of the seven for observing such a fast.

EXAMPLES OF ABSTINENCE:—HOWARD, FRANKLIN, SOCRATES, &c.

A French writer, in a work entitled 'An Apology for Fasting,' has made a comparison between the longevity of 152 bishops or clergymen, who not only led strictly temperate lives, but frequently fasted, and the same number of men devoted to literature and science, who were also temperate but not abstinent; and he finds that the lives of the bishops were seven years longer, upon an average, than those of the Academicians; which he imputes to the effects of fasting.

Howard, the philanthropist, fasted one day in the week; as also did Franklin, for a time: and Bonaparte, when he felt his system unstrung, gave up his usual repasts, and took exercise on horseback.†

The ablest physicians declare that abstinence is one of the most effectual means of preventing violent and inflammatory disorders, such as fevers and sore throats. Socrates lived in Athens during the whole of the celebrated plague, that made such desolation in that city in his time; yet he escaped unhurt: and this is unanimously ascribed, by the writers of those times, to his uninterrupted temperance.‡

I do not mean by abstinence in this case, that which is excessive: not such as monkish austerity has so often practiced, and which has been the source of so much religious superstition, self-righteousness, and cruelty. Seasons of entire abstinence, unless

directed by a physician, are rarely extended with advantage, beyond a day or two. But the danger on this side is so small, that a caution seems at this day scarcely necessary.

CASE OF POMPONIUS ATTICUS.

An amusing and instructive example of the good effects of abstinence, occurs in the case of Pomponius Atticus, the friend of Cicero. The melancholy accompanying a disordered stomach, brought him to the resolution of destroying himself; and he called together his friends, to consult as to the best means of accomplishing his design. His son-in-law, Agrippa, with great sagacity, advised and persuaded him to starve himself; recommending, however, that he should occasionally swallow a little water, to alleviate the pains of abstinence. To this he consented, supposing, as people generally do at this day, that water affords no nourishment, although, in fact, it is almost the only fluid that does nourish. In this case it sustained Atticus, day after day, beyond the time he had calculated upon dying by starvation: and not only so, but this water and the abstinence, removed the complaints of his stomach, and his dejection of spirits; and he was then easily persuaded by his son, that it was his duty to live. He did live to an advanced age."

LXXIII.

COMPARATIVE ANATOMY OF THE MUS MUSCULUS. By H. W. DEWHURST, Esq. 12 mo. pp. 14.

THIS little brochure is very appropriately inscribed to His Royal Highness the Duke of Sussex, who presides over a society, where, if fame speak true, there is a large stock of—

"Rats and Mice, and such small deer,"

that may afford the Royal Patron ample field for comparative anatomy, in the department to which Mr. Dewhurst has directed his attention, Mr. D. has given a minute and

* "Sure Methods, &c. p. 88."

† "Journal of Health, Vol. I. p. 13."

‡ "Spectator, 165. also Recs' Cyc. Art. Abstinence."

scientific anatomy of a little animal whose external form, nimble march, and furtive propensities, are but *two well* known to man. The author considers it "rather surprising that, in the present state of science, and march of intellect, so little attention should be paid to the anatomy of the various animals by which we are surrounded." But when we reflect on the propensity, which man, in all ages, has evinced for dissecting his fellow-creature, we need hardly be surprised to find rats, mice, and the inferior animals left to the care of professed *catch-ers* of a description somewhat different from those who are technically termed "*BODY SNATCHERS*." We wish Mr. Dewhurst success in his undertakings.

LXXIV.

TRACHEOTOMY, AND PERMANENT BREATHING THROUGH A TUBE. By Mr. J. KENWORTHY.

THE following very interesting case is extracted from a letter, lately received by the editor, from Mr. Kenworthy of Strange-ways, Manchester.

Case. The subject was a *poor-house* patient, in a district of the West Riding of Yorkshire. A young woman about 18 years of age. She had been under my care at intervals. Her complainings were symptoms of chronic inflammation of the glottis and trachea, which need not be defined—her own account was, that she swallowed a thimble some years before, and imagined the article still remained in the passage, as the cause of her distress. There was an enlargement externally, which gave her pain when examined, and a hard tumor presented itself to my finger down the anterior part of the œsophagus. Her breathing was difficult, and the difficulty had the appearance of being produced more by pressure than by the influence of inflammatory disturbance.

My opinion was that, eventually, laryngotomy would be necessary. Every means I could devise had been resorted to—bleeding, blistering, evacuations, antispasmodics,

mercury to affect the glandular system had been used twice, but without permanent benefit. I would not strictly say without benefit, for during the pytalism, both times, the difficulty of respiration was lessened; but when the mercurial effect subsided, the same symptoms returned, and the latter time with greater violence. Her strength was now greatly reduced—her pulse feeble at 85, and her appetite diminished. On Sunday morning, May 24th, 1818, they came for me in haste, saying they believed her dying. I rode over as quickly as possible. Her situation was pitiable—the natural effort had arrived at a climax—she appeared fighting with death—her countenance livid and cadaverous—her pulse from exhaustion and irregularity, not to be counted—there was no time to be lost—the first desideratum was relief to her breathing. I determined on Charles Bell's operation of laryngotomy, but think it extremely difficult, if not in this case impossible, as the whole of the larynx and trachea were drawn upwards and downwards with great force, in the exertions she made. I therefore extended the incision downwards, taking care to avoid the thyroid gland—opened the space between the sternohyoid and sternothyroid muscles, and dissected down to the trachea. I pushed a lancet into the front of the trachea, and, with a probe-pointed bistoury, divided downwards through three of the cartilaginous rings. The air instantly rushed out, throwing the blood in my face. My patient fainted, and remained in a faint state perhaps an hour. She was relieved from the urgency of her symptoms. When she was sufficiently recovered, by the use of stimulants, &c. I introduced my finger into the opening in front, upwards and also downward; but no extraneous substance was in the tube. The larynx was straitened so much as not to admit my little finger. I examined again by the mouth. The same tumour was there as before; so that I concluded the extraneous substance, if still remaining there, was lodged in the posterior part of the larynx, betwixt that and the pharynx. The girl

could not be left in her present state, as the object of the operation had not been fully obtained. I therefore determined to dissect round to the back part of the trachea—it was a dreadful alternative, after the pain she had suffered ; yet I thought it indispensable, and consequently made an incision by the anterior side of the sterno-cleido-mastoideus, parallel with the carotids to the posterior part of the larynx, and found not a thimble or any other extraneous substance, but the cricoid cartilage enlarged and approaching to ossification—the case appeared hopeless.

June 21st. She remains in tolerable ease, but debilitated, and cannot bear to sit up. The discharge from the neck has been copious—occasioned perhaps by a silver wire doubled, which I introduced into the slit of the trachea, for want of a better instrument, and which I have since obtained from London, viz. a silver tube three-eighths of an inch diameter, with a shield in front, and curved in the middle, for the purpose of extending a short way down the trachea.

Sept. 16th. Pulse 125 ; costive and hysterical—great pain in her head and sensibility of the eyes—thirsty and feverish. Gave her pil. fætid. and mist. aper. salin. 2a quaque hora.

18th. Better—pulse 115—had no evacuations from the bowels to-day—spasms trouble her at times—continue ut antea.

19th. Much better—slept well—pulse 80, somewhat irregular—bowels open, and head easy—eyes not so sensible to the effects of light—had no spasm since last evening—there has been a considerable purulent discharge from the opening in front of the neck. Continue the medicine, pro re nata.

Dec. 27th. Another abscess has burst from the larynx, and she is now much better again.

1819, May 7th. She has generally been pretty well. I have occasionally visited her—the disturbed sensibility of the brain again shows itself—her breathing laboured and difficult—her pulse 110—feverish and restless—bowels confined. Mist. salina aperiens, and to breathe the vapour of warm water. A few days afterwards there was a purulent discharge again, but smaller in quantity—there was occasional necessity for caustic to fungous enlargements ; but subsequently she arrived at a tolerable state of health, and lived near eight years through the means of artificial respiration, through a tube.

LXXXV.

MEDICAL BOTANY—MR. FROST.

WHEN we reflect on the benefits which Mr. Frost conferred on the profession of this country, by bringing BOTANY into notice and estimation, under great difficulties, and with the most unwearied exertions, we cannot but think that he has been rather harshly used, however imprudent he may have been, in some respects, while director of the Medico-Botanical Society. Others are now reaping the advantage of his toils and labours, and we trust that a generous public and a liberal profession will yet make some amends for the injuries which Mr. Frost has sustained in his prospects, by patronizing his botanical lectures, which we have incidentally learnt he is about to re-commence in this metropolis.

BIBLIOGRAPHICAL RECORD ;

OR,

Works received for Review since last Quarter.

1. A practical Treatise on Injuries of the Head. Small 8vo, pp. 121. Dublin, June, 1831. Price 3s. 6d.

2. Pathological and practical Observations on Spinal Distortions, illustrating an improved Mode of Treatment without the

Aid of Machinery. By F. P. B. Peckthorn, Esq. Octavo, pp. 85. London, June, 1831.

3. Treatise on Cholera Morbus ; the Method of Treatment, and the means of Prevention. Written for the Emperor of

Russia's Prize: dedicated to His Imperial Majesty. By W. WHITE, of the Hon. East India Company's Service. Octavo, sewed, pp. 36. July, 1831.

This is a valuable compilation. We shall notice some detached articles in our Periscope.

4. Du Procédé Operatoire a suivre dans l'Exploration des Organes par la Percussion Médiate, et Collection de Mémoires sur la Physiologie, la Pathologie, et le Diagnostic. Par P. A. Piorry, M. D. Octavo, pp. 425. Paris and London, 1831.

Noticed in this Number, page 488.

5. A Manual of Materia Medica and Pharmacy, comprising a concise Description of the Articles used in Medicine; with Observations on the proper Mode of combining and administering them; also the Formulæ for the official Preparations of the London, Edinburgh, Dublin, Parisian, American, and most of the continental Pharmacopœiæ, together with a Table of the Medicinal Plants. From the French of H. M. EDWARDS, M. D. and P. VAVASSEUR, M. D. Corrected and adapted to British Practice. By JOHN DAVIES, M.R.C.S. &c. One vol. 8vo. pp. 490. 1831.

This work, we believe, was published first in America—at least, it was translated into English there. Mr. Davies has performed his part with sufficient care, and the volume will be found very useful to two classes of readers—students and chemists.

6. First Lines of the Practice of Midwifery: to which are added, Remarks on the Forensic Evidence requisite in Cases of Fœticide and Infanticide. By CHARLES SEVERN, Surgeon. Octavo, pp. 143. With Plates. London, 1831.

This is a very judicious, yet concentrated compilation, interspersed with original observations. It is creditable to the author, and will be found useful to the student and junior practitioner, when some trifling errors are corrected.

Dyspepsy forestalled and resisted; or, Lectures on Diet, Regimen, and Employment, delivered to the Students of Amherst College, Spring Term, 1830, by EDWARD HITCHCOCK, Professor of Chemistry and Natural History. Second edit. enlarged, pp. 452. New York, 1831.

8. History of the Epidemic Spasmodic Cholera of Russia; including a copious Account of the Disease which has prevailed in India, and which has travelled, under that name, from Asia into Europe. Illustrated by numerous official and other Documents, &c. By BISSET HAWKINS, M.D. &c. Octavo, pp. 306. 1831.

A very able and diligent compilation, not pretending to any original information.

9. Essays on various Subjects of Medical Science. By DAVID HOSACK, M.D.F.R.S. &c. Octavo, pp. 473. New York, 1830.

10. An Account of Inventions and Improvements in Surgical Instruments, made by JOHN WEISS, 62, Strand; with a Selection of Cases wherein they have been successfully employed, and Testimonials of their Utility from eminent Surgeons. Illustrated by numerous Engravings. Second Edit. much enlarged. Price 15s. boards. Longman's, 1831.

The title sufficiently explains the nature of the volume. Independently of the ARMAMENTUM CHIRURGICUM, illustrated by plates and descriptions, the present edition contains a great number of curious cases detailed by individuals in letters or by publication.

11. A Treatise on the Practice of Medicine. In two volumes, 8vo. By JOHN EBERLE, M. D. Professor of Materia Medica and Obstetrics, &c. Philadelphia, 1830.

This appears, on a hasty glance, to be one of the ablest and most original works of the kind which we have seen.


12. Physiologie Medicale et Philosophique. Par ALM. LEPELLETIER DE LA SARTHE. 4 vols. 8vo.

The first volume only has yet been published, but the whole is to be completed in the course of the present year. It appears, from this first specimen, to be a work of merit, and the author unquestionably a man of talent and judgment.

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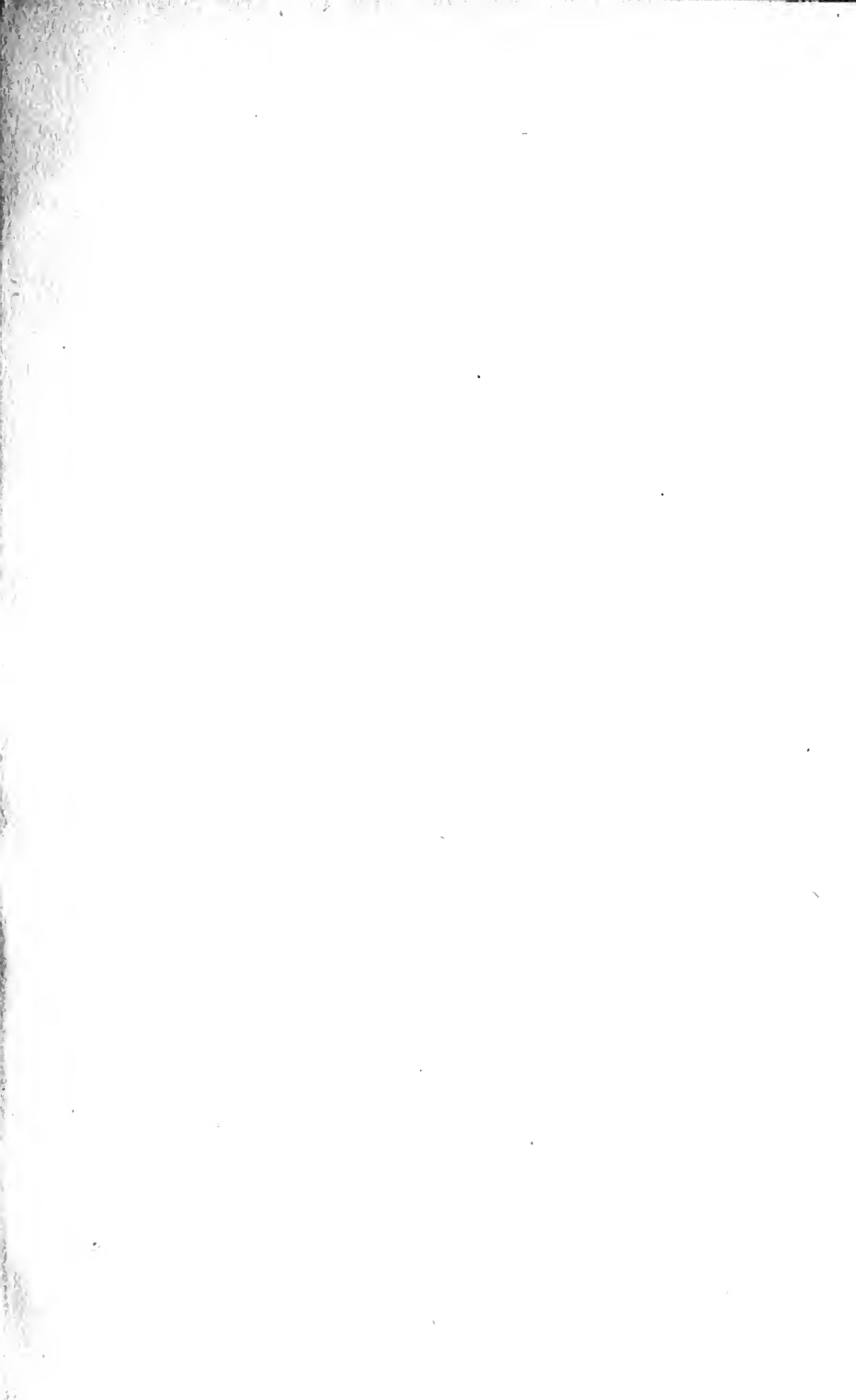
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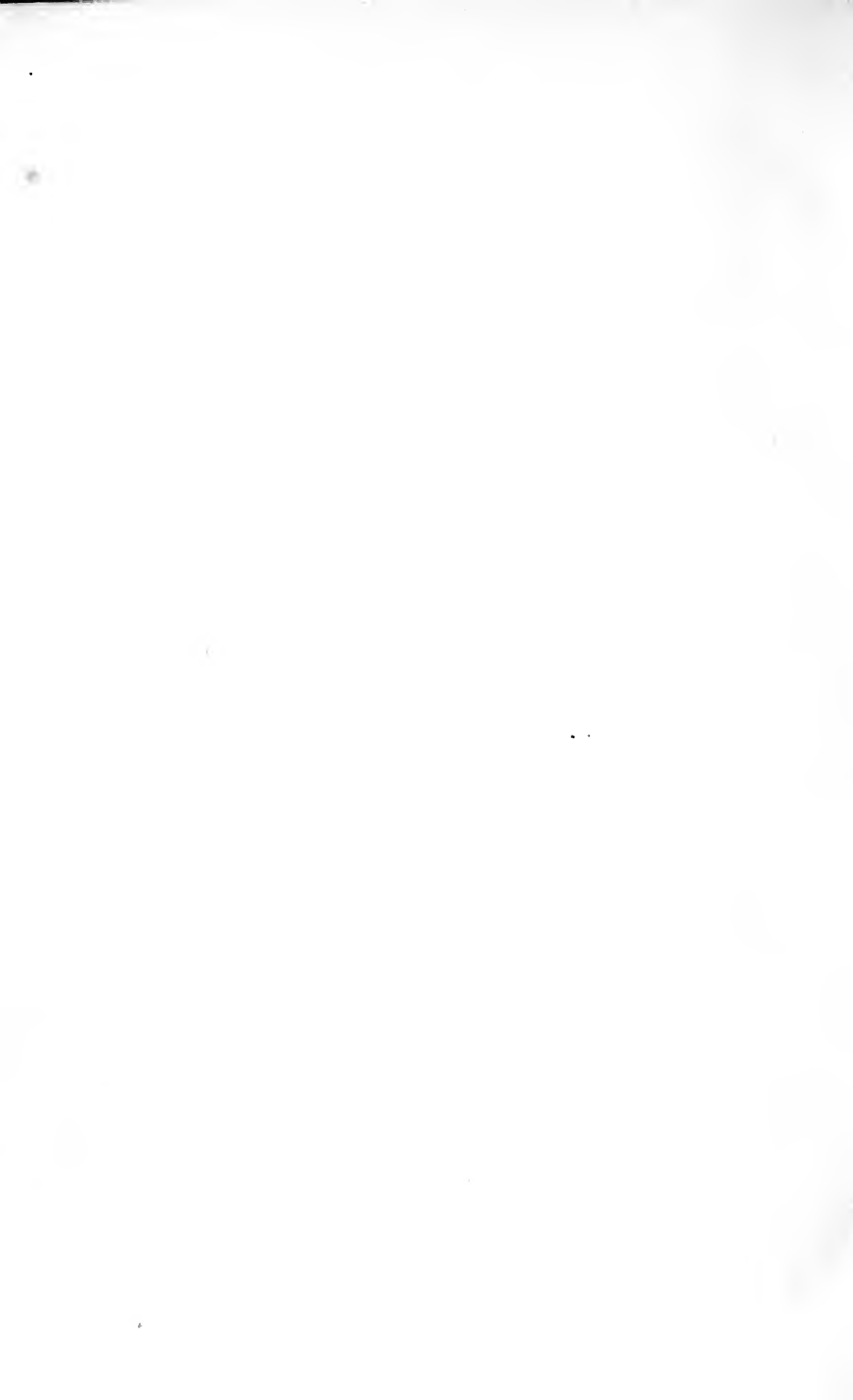
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